*TRAINING TEXT
23-71-1

PRINCIPLES OF QUICK KILL

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*This text supersedes "Quick Fire" Techniques pamphlet, United States Army Infantry School, Fort Benning, Georgia.

CHAPTER 1

INTRODUCTION

1. **PURPOSE AND SCOPE.**

a. The purpose of this training text is to provide guidance in the training procedures and technique of instruction of basic rifle marksmanship and the fast unaimed method of fire called Quick Kill.

b. This training test, when used in conjunction with FM 23-71, provides guidance for instruction in Quick Kill Techniques and Basic Rifle Marksmanship.

2. **BACKGROUND.**

a. Quick Kill has been developed and refined from the method recognized among civilians as INSTINCT SHOOTING. Basically, Quick Kill is doing what comes naturally. It is a distinct departure from most methods taught which tend toward mathematical precision. The key to the successful employment of this technique is simplicity. IT IS AS SIMPLE AS POINTING THE FINGER. Since man has fired weapons there have been those few who have effectively engaged close range targets, making no apparent or conscious effort TO AIM. However successful these firers were, no satisfactory method existed of teaching anyone else who did not have this innate ability. Hunters sometimes acquired this ability but only after firing literally thousands of shells. The method of teaching a person to effectively engage a target without first alining the sights was not discovered until 1954. During that year a most effective weapon and training aid was discovered which made it possible to teach anyone who could see his target, to hit it if it were at a sufficiently close range so that windage and trajectory were not deterents to accuracy. The weapon was a spring operated air rifle and the training aid was the BB it fired, which, because of the low velocity of the weapon, could be seen in the air and became referred to as "the poor man's tracer". The effective teaching of this system was on an individual basis - one instructor to one student - two or three students at the most.

b. United States Army Infantry School has developed a methodology whereby this technique can be effectively taught to masses of men simultaneously. However, these techniques continue to be the most personalized instruction in the Army today.

c. Let it be clearly understood that, when time allows, it is always preferable to use the sights; but, when the occasion calls for the speed of reflex reaction as a prerequisite to survival, there is no substitute for a ready and working knowledge of Quick Kill.

CHAPTER 2

EQUIPMENT

3. AIR RIFLE.

a. The initial weapon used in the training of Quick Kill is an air rifle or BB gun. There are several reasons for its use.

(1) It is extremely economical to operate.

(2) It may be fired in limited areas without danger.

(3) There is no concern over the soldier being afraid.

(4) The BB, itself, serves as a tracer.

(5) Maintenance cost can be held to a minimum.

b. A spring operated, force fed, lever action air rifle with overall dimensions of 38" - 40"; 12" - 14" distance from trigger to butt plate and a wooden stock and fore-end has been found, up to the present time, to be the most satisfactory. The air rifle should be constructed without sights so that the smooth plane of the barrel will in no way be impaired. (Figure 1)

4. SAFETY GLASSES.

The only danger from an air rifle, properly handled, is the possibility of a ricocheting BB hitting someone in the eye who is within a radius of 15 meters of the action. Also within this area the velocity of the BB is sufficient to break or crack ordinary prescription glasses. Therefore, it is imperative, AN ABSOLUTE MUST, THAT ANYONE - FIRER, INSTRUCTOR OR SPECTATOR, WITHIN 15 METERS OF THE FIRING WEAR CLEAR SAFETY GLASSES WHICH PROTECT HIS EYES FROM THE FRONT, SIDE AND TOP. THESE GLASSES MUST BE MADE OF A DURABLE MATERIAL THAT WILL WITHSTAND THE IMPACT OF A BB FIRED POINT BLANK AT A RANGE OF ONE INCH FROM AN AIR RIFLE WITH A MUZZLE VELOCITY OF AT LEAST 400 FEET PER SECOND. THESE GLASSES MUST BE SO CONSTRUCTED THAT THEY CAN BE WORN OVER PRESCRIPTION LENSES. (Figure 2)

5. AERIAL TARGET.

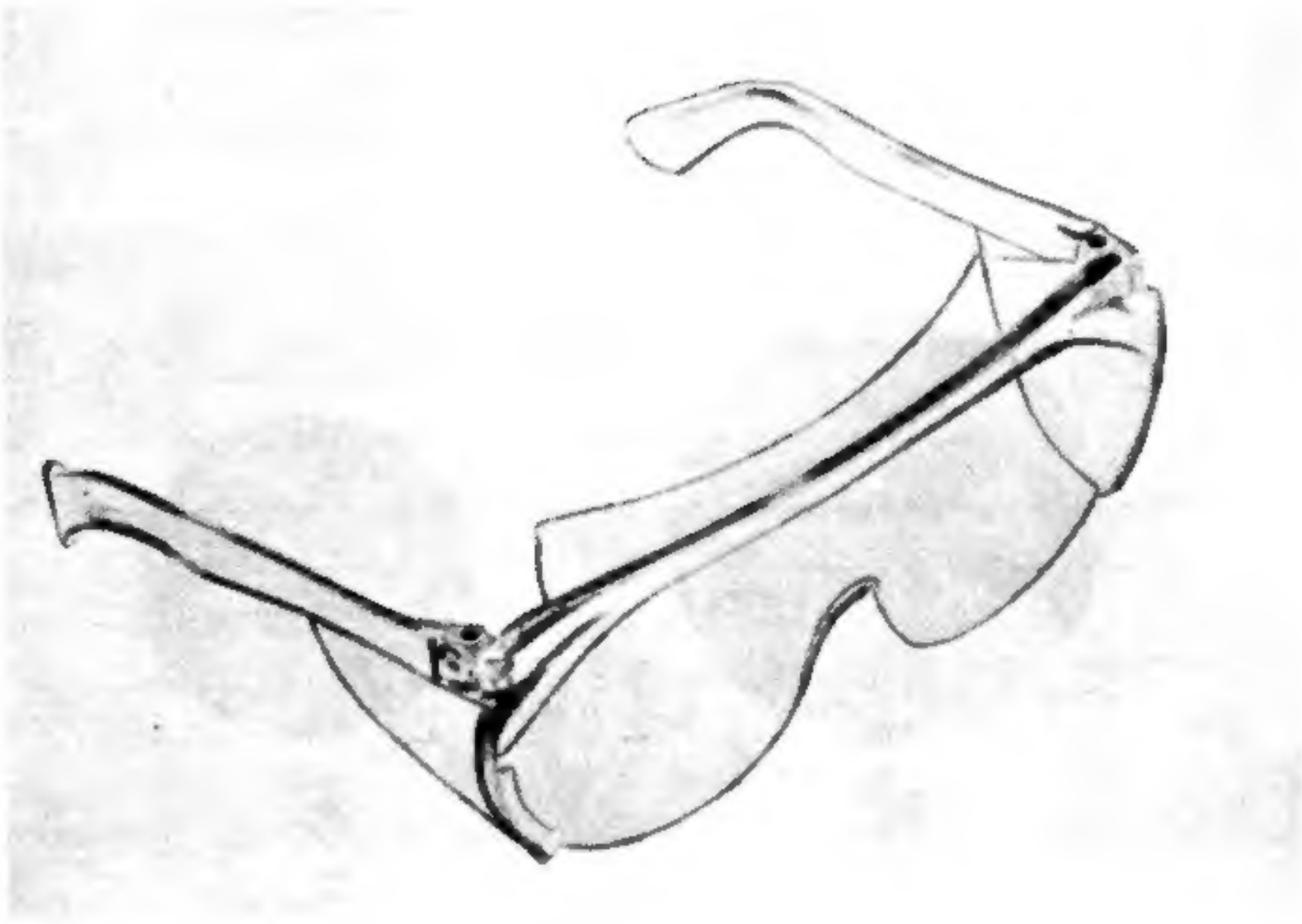
The initial target fired upon in the teaching of Quick Kill is a solid metal disc 3½" in diameter and 3/16" thick and weighs 3 ounces. (Figure 3a) When the soldier is able to hit this disc with a high degree of regularity, a smaller metal disc is substituted. (Figure 3b) This disc should be 2½" in diameter and of the same thickness as the larger one and weigh 1½ ounces.

6. GROUND TARGET.

Upon completion of aerial target training with air rifle, the soldier is directed to engage ground targets with the same weapon. The ground target device used consists of a 2" x 4", upon which are mounted 6 hinged miniature E-type silhouette targets representing at 5 meters E-type silhouettes at 50 meters. (Figure 4) On each of these targets a circle, the diameter of a nickel is painted in a contrasting color in the center of the lower third of the silhouette. (See Chapter 4 and Appendix I)

Side view of lever action air rifle used in initial Quick Kill Training.
Note the clear top line of barrel and absence of sights of any kind.

Figure 1



Pair of plastic safety glasses that protect from front, side and top as illustrated.

Figure 2

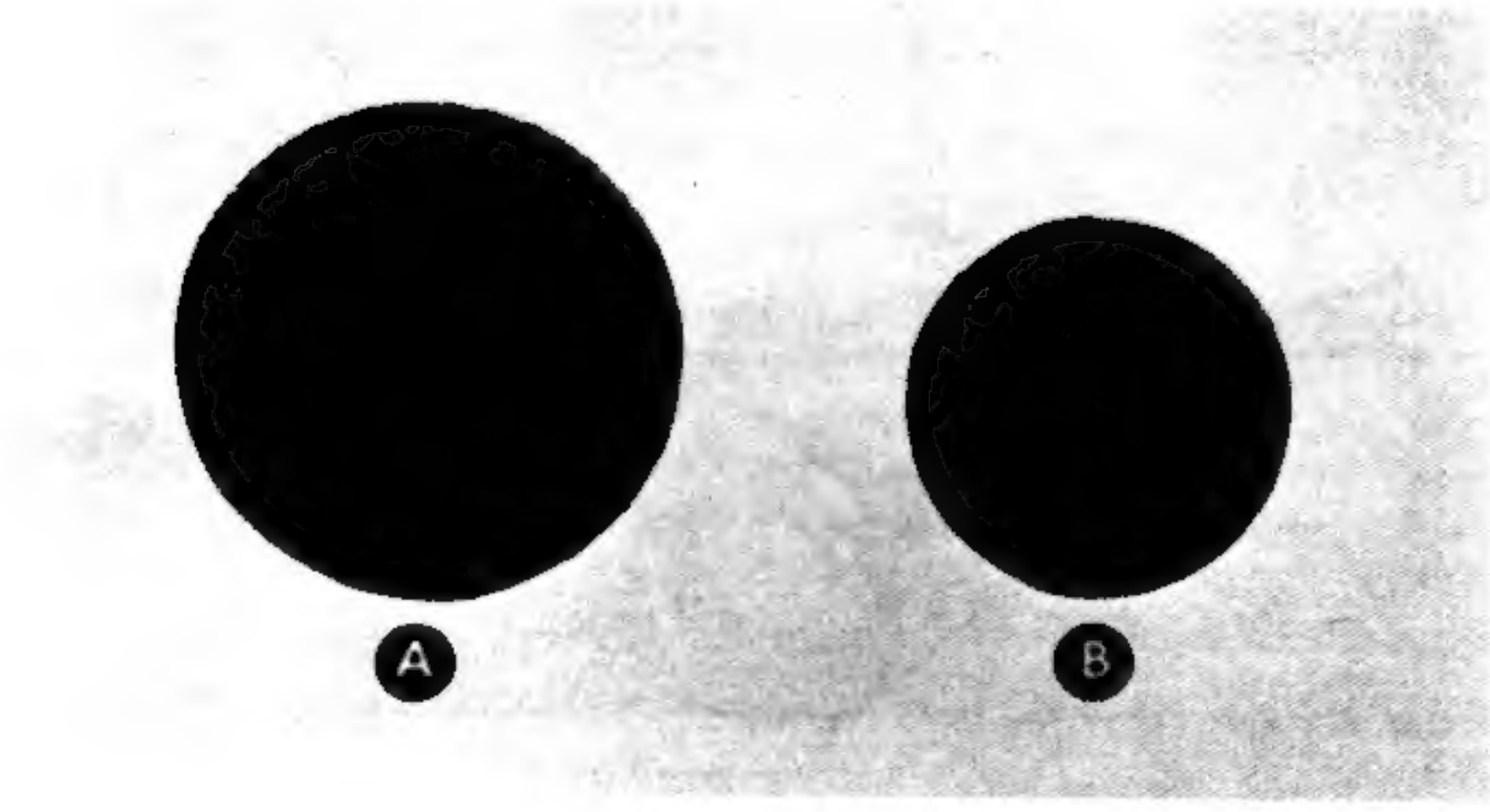
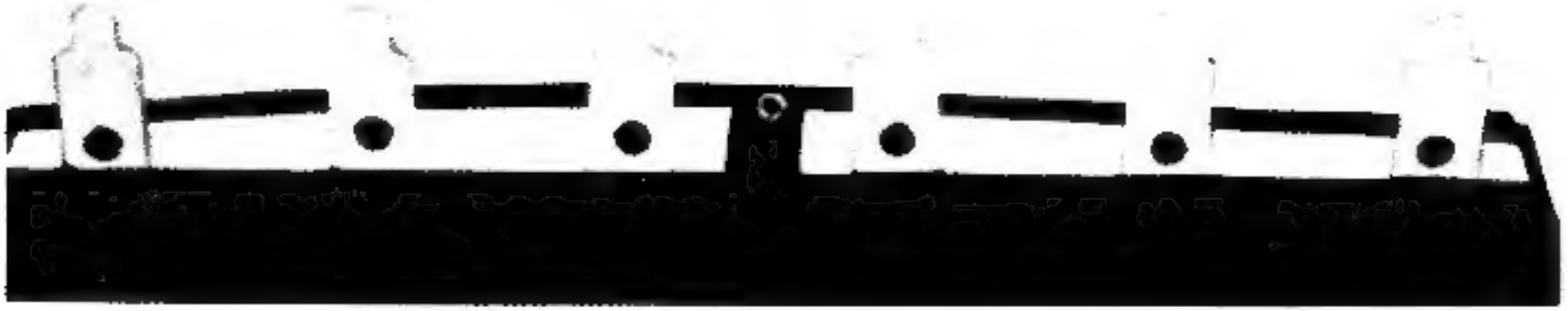


Figure 3a depicts the larger or first aerial target of aluminum 3¼" in diameter

Figure 3b is the second or smaller aerial target of 2¼" in diameter

Figure 3



Stationary ground target device (working drawing included elsewhere in this text)

Figure 4

CHAPTER 3

VISUAL CONCEPT

7. GENERAL.

It is common practice among the non-professional to consider the only function of the eye as one of acuity. If for example, a person can read letters 1" high at a distance of 20 feet, he is considered to have 20/20 vision; and, therefore, perfect eye function. This is not necessarily true since acuity is only one function of the eye. This simply means that he doesn't need prescription lenses for reading. But vision plays a much larger role in man's life. If he can see at all, vision plays a part in every mental and physical determination he makes. Some skills other than acuity that play a part in shooting are depth perception, size and distance discrimination, and coordination between eyes, brain and muscles -- particularly those affecting the trigger finger. These skills, in fact, are highly important in the process of any discriminating movements for high performance in refined physical-visual tasks. To become an effective Quick Kill shooter, for example, a soldier must learn to concentrate his visual focus on a given point of a target -- either real or imaginary -- for some time period from a one-tenth of a second to a second in order to react properly and effectively engage the target at the point of focus or close to it. It is not enough to see the bulk of the target or be casually aware of its presence. The firer must instinctively select a specific spot within the overall area of his target and that spot MUST capture his complete attention. This is the difference between merely seeing an object and REALLY LOOKING at that object. The procedure for accomplishing this and becoming a competent Quick Kill shooter is further explained in Chapter 4.

8. MASTER EYE.

As most people are predominantly right or left handed in their actions, they are also predominantly right or left eyed and the dominant or stronger eye is called the Master Eye. **IT IS OF VITAL IMPORTANCE THAT THE MASTER EYE OF EACH SOLDIER BE DETERMINED BEFORE HE FIRES THE FIRST ROUND FROM ANY ARMY WEAPON IN BASIC RIFLE MARKSMANSHIP TRAINING.** The procedure for accomplishing this is as follows:

a. The instructor stands in front of the soldier at a distance of 6 to 10 feet, placing his forefinger against his nose. (Figure 5)

b. He instructs the soldier to concentrate on this point of focus with both eyes open.

c. Then, the soldier extends his dominant arm, forms a circle with thumb and forefinger of that hand, looks through the aperture until he focuses on the nose of the instructor. (Figure 5)

d. The soldier's eye which appears to the instructor directly behind the finger circle is the **MASTER EYE.** (Figure 6) In this illustration the **MASTER EYE** is the left eye.

The importance of pre-firing determination of the **MASTER EYE** lies in preventing errors which would eventually have to be corrected. If a soldier is a right-handed shooter and has a master left eye, he has what is known as crossed-dominance. He is inclined to strike his target on the left side, left edge, or miss it altogether to the left. The instructor remedies this by insisting the soldier keep his head high (line of vision two -- three inches above the top line of his weapon), erect and turned slightly to the right so that the left eye is directly over the bore of the barrel. If the shooter is left-handed and right-eyed, the procedure is reversed. Regardless which eye is a shooter's master eye, if he gets his head too low on the stock or the comb of the stock too high on his cheek (where line of vision and top line of the weapon approach each other to the point of becoming the same line) he, the shooter, is blocking out the vision from his shooting side and is picking up his alinement from the off eye. He therefore develops what is known as a parallax of vision, which means he sees a target from a different point than he did with head held high and this produces an apparent displacement. If he is a right shouldered shooter, he is seeing across the muzzle of the weapon with his left eye and believes it therefore is pointed to the right of his target. As a result, he pulls to the left and establishes a faulty alinement, producing strikes to the left of center. The effect, in fact, is similar to the one created by the driver of a car who attempts to stay on the right side of the road while driving with his head leaning out of the window which will cause him to pull to the left.

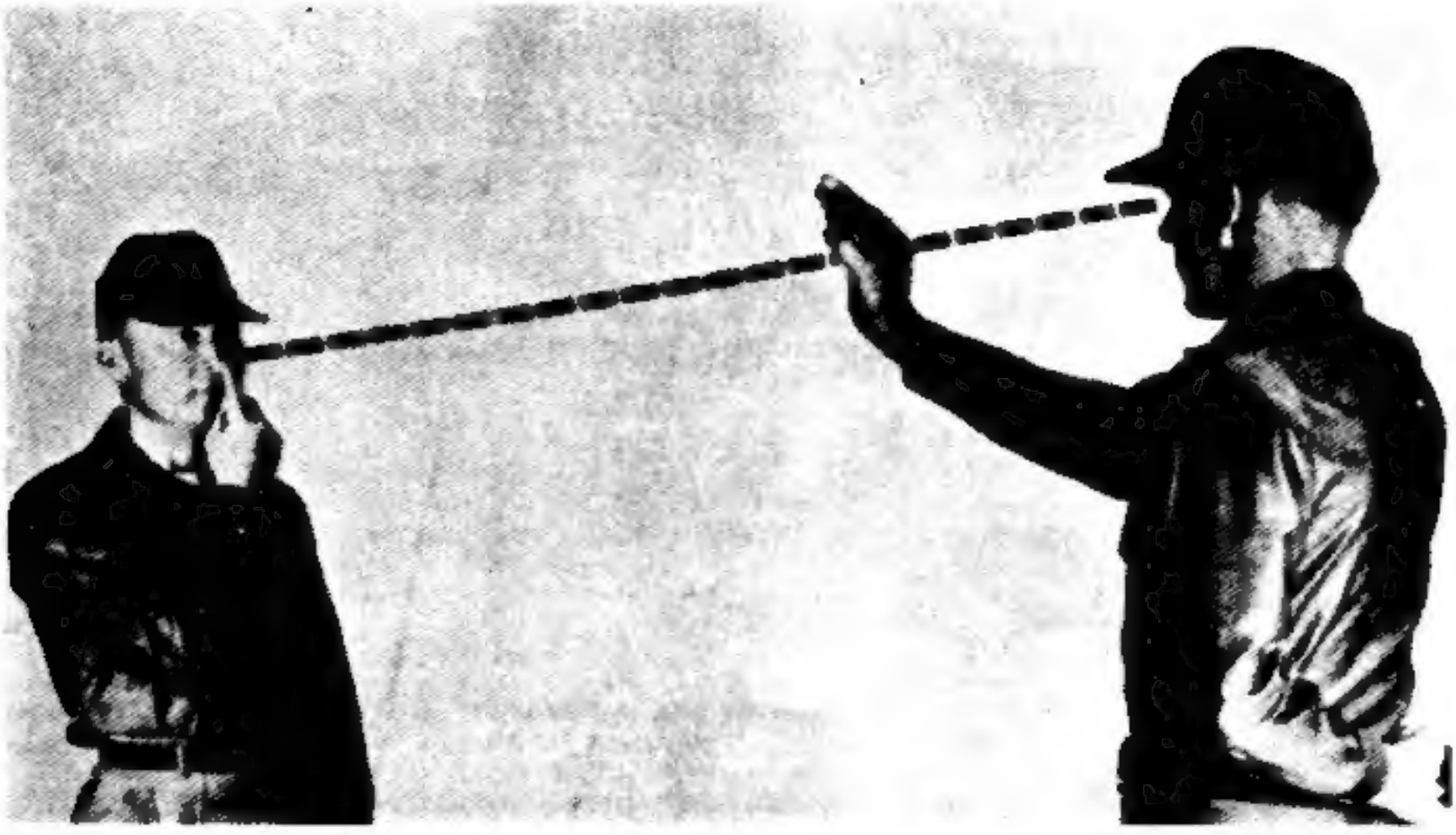


Figure to the left is instructor checking master eye of soldier to the right. Note instructor places finger on nose in order to emphasize point at which student soldier is to look through circle made by his thumb and forefinger.

Figure 5

Instructor sees what you see. He sees the left eye of student soldier behind thumb and forefinger circle. This soldier has a master left eye.

Figure 6

CHAPTER 4

AIR RIFLE TRAINING

9. COCKING PROCEDURE.

The air rifle which is at present used in the initial stages of Quick Kill training has a lever cocking action which builds up considerable pressure during the cocking process. If the cocking is not carried out in the proper manner, it is not only tiring, but can be extremely damaging to the fingers should the lever slip and smash them against the stock. Therefore, before moving to the firing line, it is imperative the soldier be taught to position the weapon as in figure 7, pushing the barrel in a counter-clockwise direction until the gun is fully cocked (figure 8).

10. AERIAL TARGET SHOOTING POSITION.

Prior to actual instruction and as soon as the soldier is assigned to a firing point his instructor will check his master eye and if there is crossed dominance he will take appropriate precautions as described in 8d. Then the soldier (and observers, if any) will put on their safety glasses. The instructor will establish him in the "proper" shooting position, (front view figure 9, right side view, figure 10a; left side view, figure 10b; and rear view, figure 11), carefully noting the following:

a. That he is leaning slightly forward and into his weapon.

b. That his head is erect.

c. That <u>BOTH</u> eyes are open and looking well over the weapon, <u>NOT</u> down the barrel.

d. That the weapon is locked into the pocket of his shoulder.

e. That the stock is stock-welded to his jaw.

f. That the muzzle of the weapon is elevated to an angle of about 75°

g. When the weapon is locked into position properly, it has become an extension of his eyes, and it is pointing where the student is looking and his whole body must move as a unit with his eyes, as they move to any target.

h. That his feet are comfortably spread and his weight is on the balls of his feet for easy body balance and mobility.

11. AERIAL TARGET AIR RIFLE SHOOTING INSTRUCTION.

a. When the soldier is in the "proper" position, the instructor should have him fire into the air. As he looks over the barrel and about 15-20 meters beyond the end of the muzzle, the soldier should be able to see the BB. He is in reality firing an inexpensive tracer.

b. The instructor now shows the soldier the initial aerial target (3½" metal disc) and carefully explains to the soldier that he is going to toss the target a distance of 2-4 meters above the soldier's head and slightly in front of him. (Figure 12). The instructor next explains to the soldier that he is to LOOK (NOT aim, point, track or lead) at the TOP EDGE of that target. The soldier is NOT to look at the barrel. Because the shooter's line of vision is higher than the plane of his barrel, he must look at the TOP EDGE of an aerial target so that his line of fire is toward the center of mass and not below the target. If he looks at the whole target, with no point of concentration, he will shoot all around the target. The shooter MUST learn to concentrate his focus on a given point. Initially, this MUST be the TOP EDGE. After the shooter has become extremely proficient, he will be able to pick out any point on the target and hit it.

c. The instructor should throw two or three targets into the air for the soldier to observe as dry runs prior to the soldier's firing his first shot.

d. The instructor must assume the proper position in relation to the soldier so that he may (1) observe the soldier's positioning of his piece, (2) determine whether he is LOOKING at his target or pointing at it, and (3) follow the path of the BB. (Right side view, figure 13a; left side view, figure 13b.)

Correct cocking procedure with right hand gripping lever, left hand starts cocking action

Figure 7

Left hand forces barrel down to horizontal position while right hand recoils stationary

Figure 5

Front view showing proper eye-barrel relationship. Eyes between 2" and 3" above top line of barrel

Figure 9

Right side view showing proper eye-barrel relationship in preparation for firing on aerial target

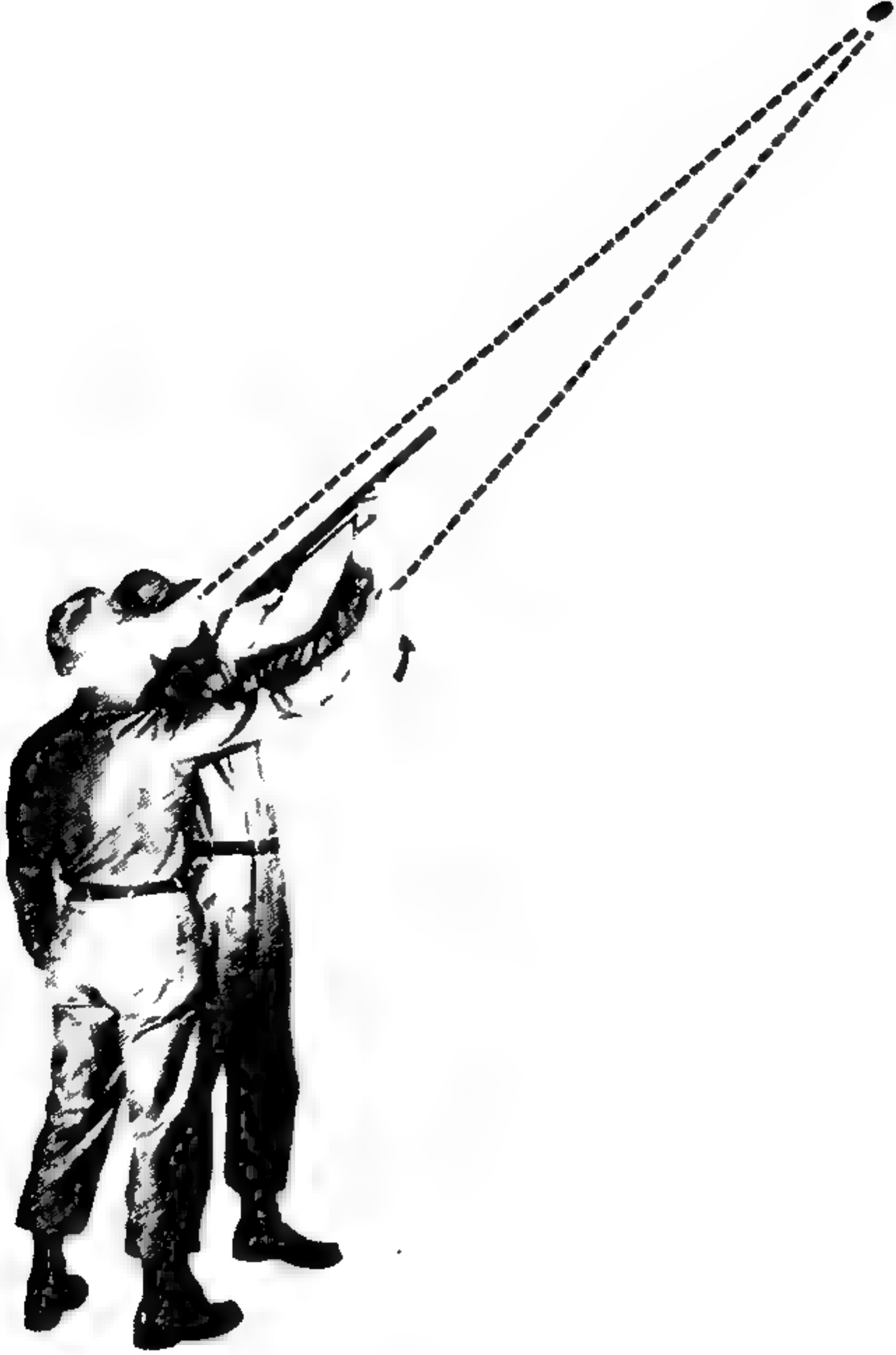
Figure 10a

Left side view showing proper eye-barrel relationship in preparation for firing on aerial target

Figure 10b

Rear view showing proper erect head position in preparation for firing an aerial target.

Figure 11



Left side view of proper position for instructor to take in relation to his student. From this position instructor can more easily see how student soldier is positioning weapon and look where he is looking. Also from this position he will find it easier to throw target where it should appear in sky.

Figure 12

Right side view of proper position for instructor demonstration on student soldier prior to throwing target

Figure 12

Left side view of proper position for instructor in relation to student soldier prior to throwing target

Figure 13b

e. Instruction in Quick Kill should always be preceded by a thorough demonstration The instructor must remember that effectiveness in the "Quick Kill' method of shooting is based on quickly instilling confidence in the shooter; therefore, the more dramatic the demonstration, within military limits, the more effectively this quality is instilled prior to training. (A sample lecture and demonstration outline is at Appendix IX.) So, from the very start, the instructor must begin to instill that confidence. In effect, he is going to "talk" the soldier into hitting. Therefore, the instructor talks to the soldier continuously while the soldier is shooting. The instructor may develop his own type of "patter", but it MUST embrace this kind of terminology, "Look at the top of your target Watch the top edge of your target. If you are going to miss, miss over the top of your target". Although the soldier may not consciously hear the instructor each time, the coaching will have a subconscious effect and get the proper reaction from the soldier Do not slacken the coaching and continually offer encouragement and congratulations as the soldier succeeds NEVER be negative in your approach and NEVER reprimand the soldier as long as he is honestly trying- no matter how slow he is to learn More so than in any other type of military instruction, must the instructor initially be a persuasive and convincing "salesman'.

f. After each aerial target is thrown and fired upon, the instructor must see that the soldier lowers his weapon and recocks it by the safe leverage method (figures 7 & 8). Then the soldier premounts his weapon before the next target is exposed.

g. The instructor MUST continue tossing the larger target until the soldier is able to hit it approximately 8 out of 10 times. When the soldier is able to accomplish this, the instructor should move on to the smaller target, explaining to the soldier that size makes no difference If he looks at the TOP EDGE, he will hit it. If he doesn t, he will miss it by the same amount he would have missed the larger target. NINETY PERCENT OF AERIAL TARGET MISSES ARE BENEATH THE TARGET. If the soldier gets his head too far down on the stock he will make this error, because he has to drop the barrel below the target in order to see it. If the soldier has trouble hitting the smaller target, DON'T let him miss it many times before going back to the larger target. Keep rotating back and forth until the soldier is able to hit either one with regularity. When the soldier is at this stage of learning "Quick Kill", the instructor may allow him to hold the weapon at the "high port" position as a target is tossed into the air, then mount the weapon while LOOKING at the target and engage it.

h. The soldier may desire to fire at smaller targets; such as candy Life Savers or salt tablets, and should be encouraged to do so on his own time. However, training time is not allocated for practice firing of this nature.

i. When the instructor has one soldier hitting the larger target 8 out of 10 times, he should begin instructing the second soldier. When the second soldier is doing as well as the first, the instructor pairs the two off as coach and pupil to work together Coach and pupil should switch position after each magazine is fired. Since this is a firing exercise the instructor should remember this and so advise the soldier he is instructing After he has paired off all his soldiers, he becomes an observer and serves only in an advisory capacity where needed. During breaks for rest or reloading, the instructor will answer questions or explain the system. The more familiar the soldier becomes with 'WHY" the "Quick Kill' method works, the more he will retain of HOW to fire the 'Quick Kill' method when it counts - in combat!

12. GROUND TARGET AIR RIFLE SHOOTING INSTRUCTION.

a. After the soldier has deve.oped proficiency in hitting both the large and small aerial targets, the next step is ground targets. The purpose of aerial shooting is to dramatize a man's natural shooting ability, build his confidence in himself and fire up his enthusiasm In addition, the soldier is learning to hit moving targets. Shooting men on the ground is the "name of the game', and all further instruction in this training text will address itself to this subject.

b The first point the instructor MUST emphasize to the soldier is that PROTECTIVE GLASSES MUST ALSO BE WORN WHILE ENGAGING GROUND TARGETS. BB's will ricochet back from the miniature E-type silhouettes just as dangerously as they did from aerial targets.

c. The instructor puts the soldier in a "proper' shooting position leaning slightly forward, weapon at the low port position, feet comfortably spread and weight on the balls of the feet for balance so that he can engage targets within an arc of at least 120° to his front without having to shift his feet

d. At this point the instructor MUST explain to the soldier that he LOOKS AT THE BASE OF A GROUND TARGET AS OPPOSED TO THE TOP OF AN AERIAL TARGET.

e. It is a natural inclination to shoot over ground targets because of a tendency to overestimate distances and an urge to draw a comparison between the barrel and the target. Also, if the soldier does miss, he wants his shot to be low so that there still remains the possibility of effectively engaging his target with the ricochet.

f. With the soldier in a "proper" position, the instructor teaches him to "stick" or jab at his target as he brings the weapon to his shoulder and stock-welds the stock to jaw. (Figure 14) DO NOT let the soldier "flag", "swing" or "snap" into firing position.

g. While the weapon is being shouldered, and during the firing, the soldier's eyes (BOTH EYES OPEN) MUST be riveted on the contrasting colored spot appearing 1" above the base of the miniature silhouette. In order for him to do this, he MUST drop the weapon from his line of vision so that he makes no comparison between the target and the muzzle. (Figure 15)

h. The soldier is now ready to shoot ground targets. He MUST be reminded that, should he miss a ground target, he is to engage a different one rather than continuing to fire on the missed silhouette because the soldier sees the strike of his bullet. In the case of a miss, either high or low, right or left, he will be inclined to bracket or shoot right back where he made his original error if he does not shift targets and erase the incorrect visual picture from his mind.

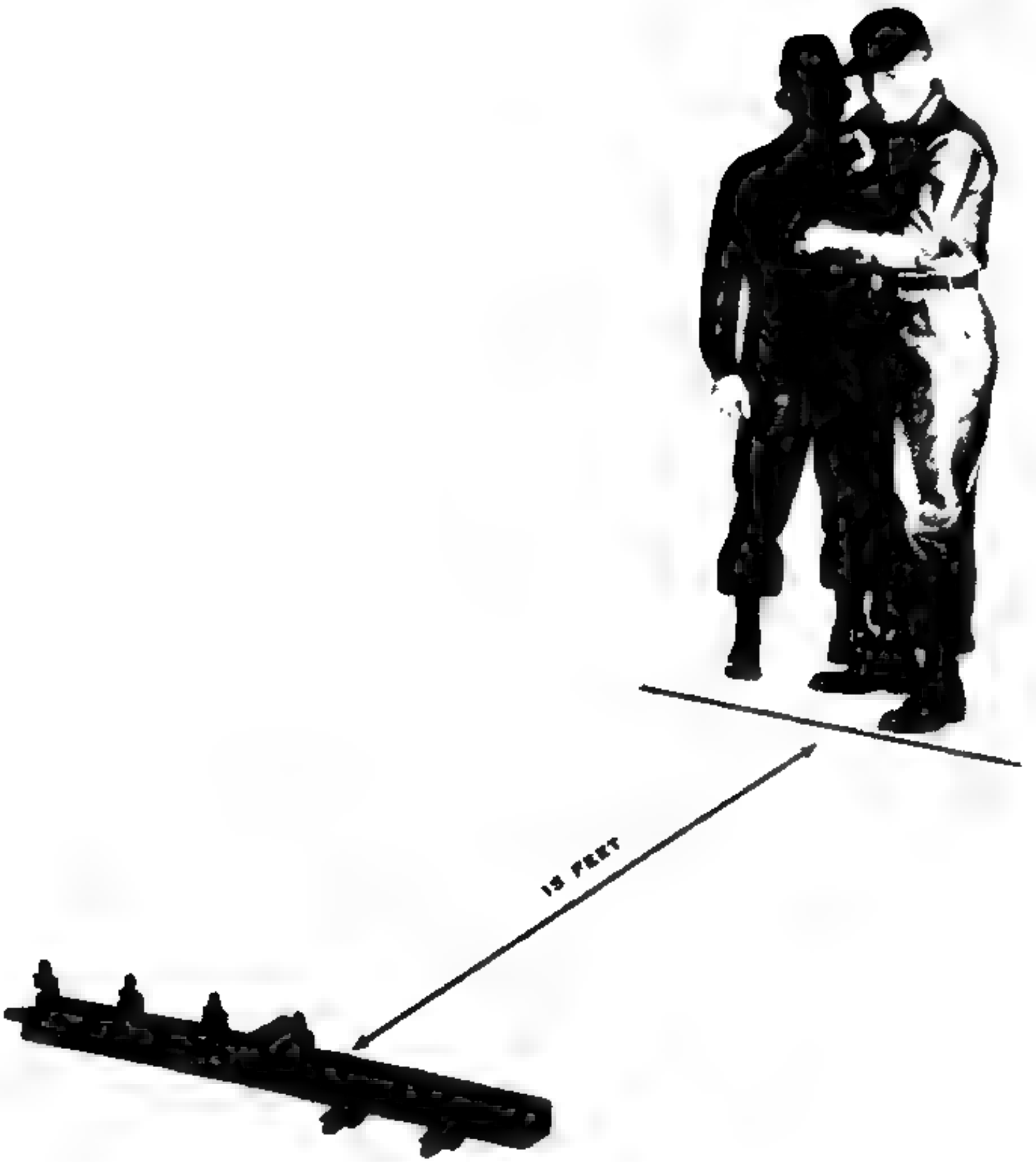
NOTE: Emphasize that a soldier would not shift targets in combat should he miss, but would continue in his efforts to effectively engage the same approaching enemy target. The shifting from a missed ground silhouette to another is merely a training aid to assist him in developing skill in the "Quick Kill" method until he becomes profisient and instinctive in his reaction.

i. The instructor should explain to the soldier and continue to remind him that he is 'on target" as soon as his weapon is locked into position and that he should not hesitate to fire. The longer he waits, the more he is apt to aim or attempt to draw a comparison between the target and the muzzle. On the other hand, he should not hurry his shot. He should shoulder the weapon in one smooth fluid movement, not hurriedly jerk it to his shoulder. Haste actually slows him down and makes his shooting very erratic. Motto: "MAKE HASTE SLOWLY!"

j The instructor must continually and continuously coach the soldier, just as in aerial shooting. "Talk" him into hitting. Be positive, encouraging and congratulating upon each successful hit so that the soldier's confidence and enthusiasm stay at a high pitch. STRESS SMOOTHNESS AND RHYTHM.

Right side view of soldier leaning forward into his weapon, weight evenly distributed on balls of feet with air rifle locked into shoulder pocket, stock welded to jaw. Note line of vision 2" to 3" above top line of barrel

Figure 1/



Front view showing proper position of instructor in relation to student soldier while he is engaging stationary air rifle ground target device

Figure 15

CHAPTER 5

SERVICE WEAPON FIRING INSTRUCTIONS

13 GENERAL The information included in this chapter concerning Quick Kill firing instructions is limited to their application to the M14 rifle since it is the weapon used in the Basic Rifle Marksmanship Course It should be noted, however, that the principle applies with other shoulder weapons.

14. TRANSITION TO M14 RIFLE.

It is necessary to bridge the gap for the soldier who has been firing an air rifle at various aerial targets, which have developed his confidence and fired up his enthusiasm and at miniature silhouette ground targets, to the real business of Army marksmanship training -- firing service weapons at E-type silhouettes The instructor places the soldier on a firing line at a distance of 5 to 8 meters from an E-type silhouette target (preferably an electrically activated one so that the strike of the bullet knocks it down) The soldier engages this target with an air rifle for a period no longer than 5 minutes This silhouette should have a circle 2-3 inches in diameter painted in the center of the lower third as illustrated in figure 16. This circle serves as the "looking" point for the soldier. After this 5 minute warm-up, the instructor must emphasize to the soldier that he is now ready to fire the service weapon and to fire it exactly as he has the air rifle.

15. M14 WITH RIB AS TRAINING AID.

a. So far, the soldier has confined his firing to an air rifle He has learned to LOOK at the target and NOT his weapon. This, of course, ins phrase is Quick Kill. The barrel of this air rifle, however, was not encumbered with sights, hence, there was no protrusion above the barrel to distract his eyes from the target. Therefore, when he locks his service piece into the pocket of his shoulder, looking over the prominent sights of the M14, he is not only inclined to be distracted by these sights, but, further, he is unable to pick up the top plane of the barrel in his peripheral vision. As a result, he is inclined to lose confidence in the Quick Kill or pointing method since he may not be able to visually relate himself to the weapon

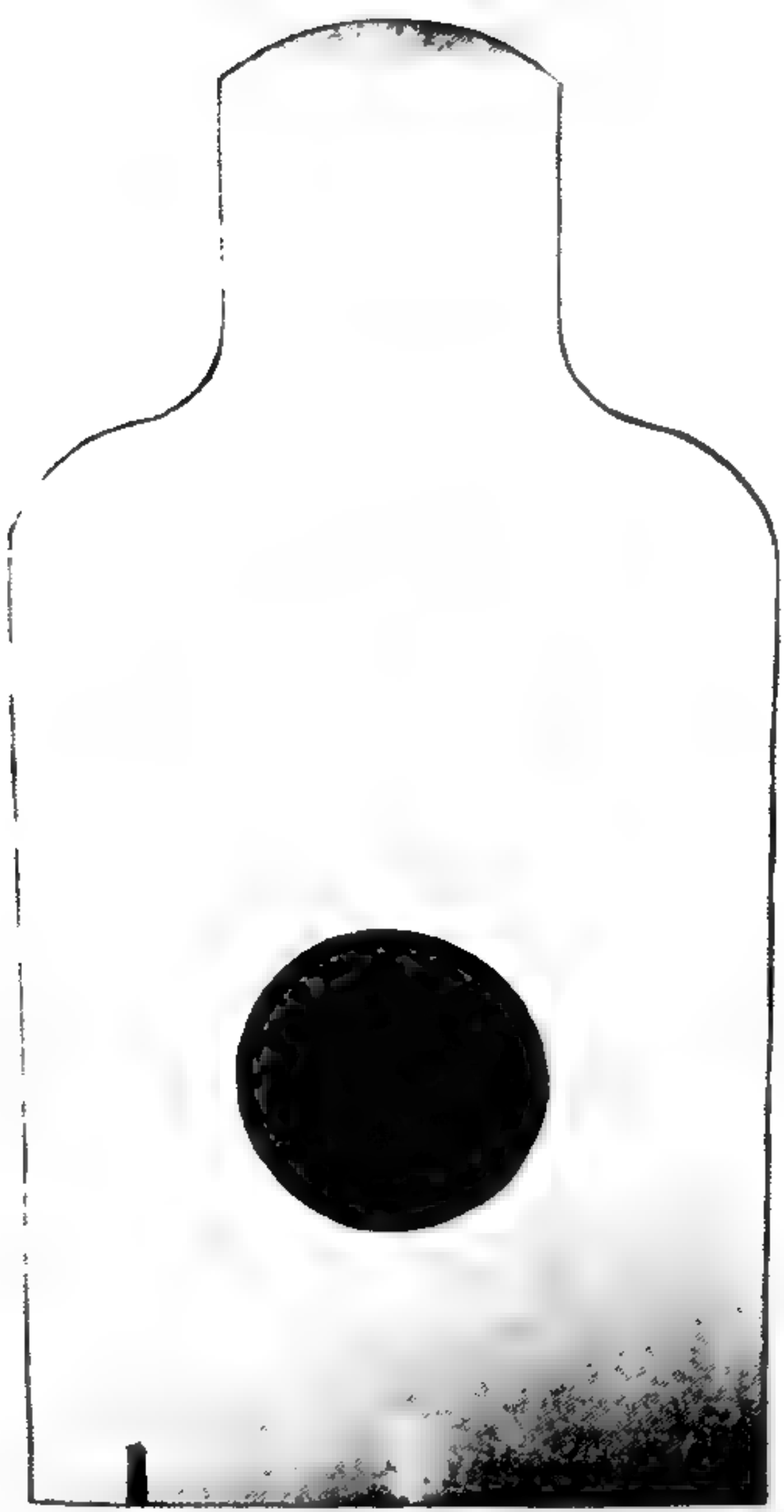
b. Although the effective Quick Kill Shooter does not consciously aline his barrel when picking up his target, he must be able to relate himself to it just as the driver of an automobile keeps his car on the road by looking to the horizon maintains his position on the road because the hood of the car appears in his peripheral vision relating car and road. In order to accomplish this same relationship between rifle and target when the soldier switches from air rifle to service weapon, a temporary rib, figure 17a and b, is used. Both front and rear sights are taped. (M16, figure 18a and b). The top of this simple device, the rib, is visually apparent to the soldier and gives the illusion of the straight line plane of the air rifle. THIS IS PARTICULARLY IMPORTANT because the soldier is to position himself and fire the M14 EXACTLY as he did the air rifle.

16. M14 QUICK KILL FIELD FIRING.

a. The soldier initially engages the E-type silhouette as pictured in figure 19a, front view; figure 19b, side view, using the M14 with temporary training rib attached at a range of 15 meters. After firing 5 rounds, the soldier and instructor move forward to the target, examining the soldier's group or pattern of strikes. This is a critical stage in Quick Kill Training. The soldier may be grouping well; but, if his strikes are to either side of the target at this range, he will be completely off the target at an extended range. If he is vertically centered, he should be able to extend his effective range without difficulty. If the soldier is shooting to the right or left side of the target, the instructor should take into consideration the soldier's MASTER EYE and the position of his head as it relates to the stock of his weapon. These are the factors primarily responsible for off-center shooting.

b. Following the instructor's correction of the soldier after 5 rounds at 15 meters, the soldier shoots another 5 rounds at 15 meters in order to determine if he has made the appropriate corrections NO USEFUL PURPOSE IS SERVED IN EXTENDING THE TRAINEE'S RANGE UNTIL HE IS EFFECTIVE AT 15 METERS

c. After firing at 15 meters the firing line is moved back to 30 meters from which point the soldier fires 10 rounds He and the instructor then examine the target.



Front view of E-Type silhouette illustrating painted circle as focal point for soldier who will engage it.

Figure 16

Figure 17a. Top view of M14 showing temporary rib.

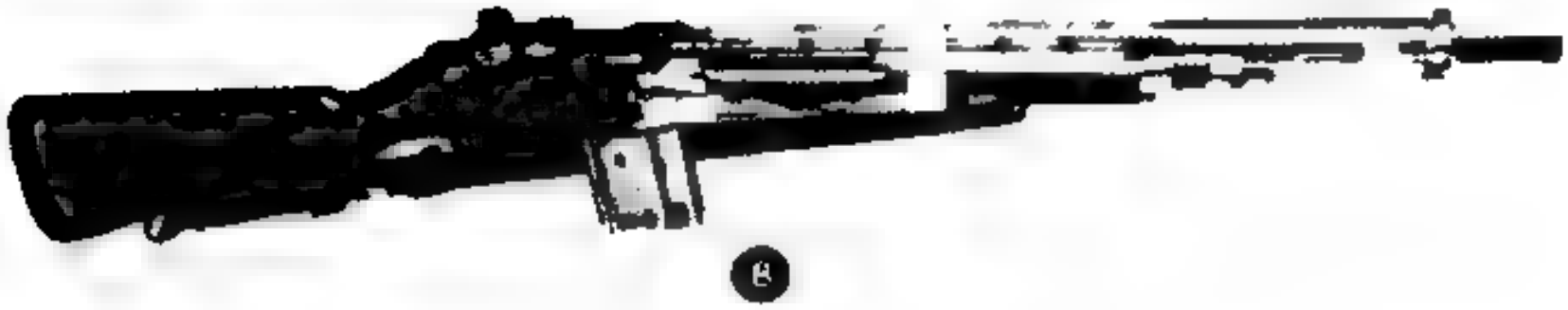


Figure 17b. Side view of M14 showing temporary rib.

Figure 17

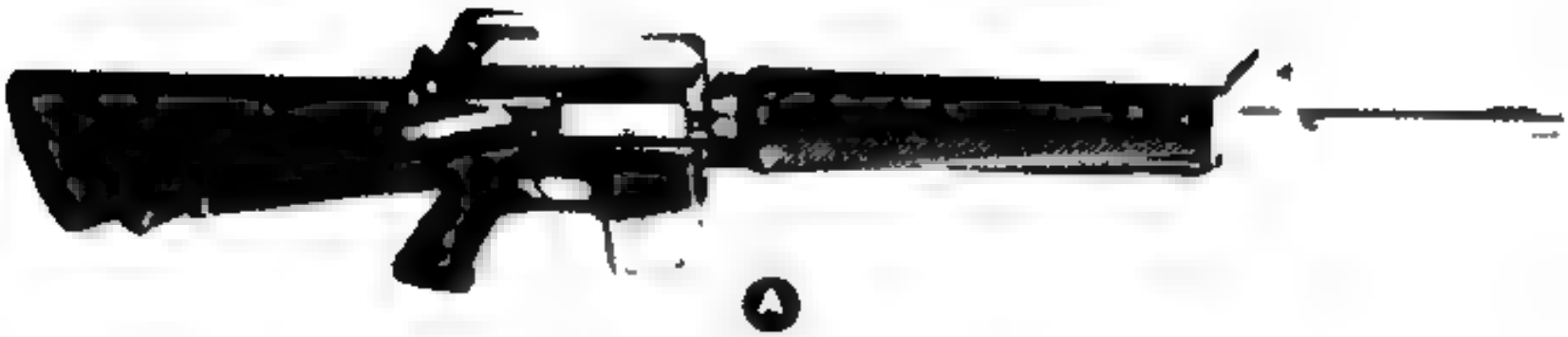


Figure 18a. Top view of M.6 showing temporary rib.

Figure 18b. Side view of M16 showing temporary rib.

Figure 18

Photograph showing relationship of soldier's eyes to barrel of M14 + 2 + 3" above it

Right side view showing relationship of soldier's eyes to barrel of M14 - 2" - 3" above it

Figure 19b

d. Finally, the soldier moves back to 50 meters which is the ultimate extent of range in Quick Kill training during the Basic Rifle Marksmanship Program. The soldier fires 10 rounds at this range following which he and the instructor once again check his effectiveness. At this stage of training the soldier is sufficiently accomplished and confident so that the temporary training rib may be discarded. He is taken back through the 3 ranges he has just fired, engaging the target with the same number of rounds in order to insure the fact that he recognizes the training rib is no longer necessary Both front and rear sights continue to be taped throughout the above exercisee.

17. NIGHT FIRING.

The soldier will have completed his Quick Kill instruction, both air rifle and service weapon, between the hours of 0800 and 1700. He is now ready for Night Firing The procedure is identical to that conducted during the day. The sights should continue to be taped so that there is no inclination to use them. It has been the custom in the past that night firing was conducted at ranges of 50 and 75 meters if the prevailing light was adequate and from 25 and 50 if it was not. It is here strongly recommended that the terminology be changed to: night firing should be conducted to the limit of visibility since it is impossible to hit a target except by luck, that the shooter cannot see; and NO USEFUL PURPOSE IS SERVED.

NOTE: During experimental training it has been the experience of the instructors that the periods of Quick Kill instruction have had such a positive effect on the soldier and developed his enthusiasm and confidence to such a point, that, in some cases, there have been those who felt they could effectively engage any target -- regardless of range -- without using the sights. In order to prevent any such reaction, it is suggested that, during the introduction to period 7, a brief demonstration be presented. It should illustrate an instructor (preferably a member of the Quick Kill demonstration team) using his sights, engaging an E-type silhouette from the prone position and at a range of 200 - 300 meters. The purpose of this demonstration, and it MUST be brought out by the PI, is to establish the fact that, during the Quick Kill periods of instruction the soldiers are taught a fast, effective, unaimed method of fire necessary to engage fleeting or surprise close range targets. Throughout the remainder of basic rifle marksmanship they will be learning the sighting method which as evidenced by the demonstrator's tight group at this extended range, is quite different from, but compatible with the Quick Kill method.

APPENDIX I

TEXT REFERENCES, TRAINING AIDS, AND DESIRABLE FACILITIES

1. General. This appendix is intended to provide a guide to all pertinent published training material, applicable training aids, and desirable facilities for the use of individuals responsible for conduct and supervision of training. Text references and training aids obtainable from higher headquarters are not required to be locally available and will not be requisitioned by units. References that are not authorized by distribution formula for certain type units are not considered necessary.

2. Text References.

a. Army Regulations (AR).

320-5	Dictionary of United States Army Terms (Short Title AD)
320-50	Authorized Abbreviations and Brevity Codes
385-63	Regulations for Firing Ammunition for Training, Target Practice, and Combat

b. Field Manuals (FM).

21-5	Military Training Management
21-6	Techniques of Military Instruction
21-75	Combat Training of the Individual Soldier and Patrolling
23-8	U.S. Rifle, 7.62mm, M14 and M14E2.
23-9	U.S. Rifle, 5.56mm, XM16E1
23-71	Rifle Marksmanship

c. Army Training Programs (ATP).

21-114	Male Military Personnel Without Prior Service

d. Department of the Army Pamphlets (DA Pam).

108-1	Index of Army Films, Transparencies, GTA Charts and Recordings
310-Series	Military Publications

e. Training Text (TT).

23-71-1	Principles of Quick Kill

f. Books.

Instinct Shooting, M.C. Jennings, Dodd, Mead, & Co., 1959, revised 1964.

3. Training Aids. Training aids to support this ASubjSCd are also shown in Appendix G, FM 23-71.

a. Training Films (TF).

7-2796	Trainfire I (25 min)
7-3319	Rifle Marksmanship -- Target Detection (31 min)
9-2970	U.S. Rifle, Caliber 7.62mm, M-14 -- Operation and Cycle of Functioning (28 min)

b. Graphic Training Aids (GTA).

T(GTA) 7-1-2	U.S. Rifle 7.62mm, M14 and M14 (Modified) -- Mechanical Training

c. Miscellaneous.

TOE equipment

Firing data cards

Shot group analysis cards

Rifle rest

Target box

Target discs

Dummy rounds

Aiming devices

Shot group templates

Sighting devices

Black lights

Blackboards

Projector and screen

Cleaning materials

Scorecards

Pencils

Stopwatches

Range tables, targets and target frames

Authorized ammunition allowances

M16A1 Air Rifles

Ground target devices

Discs (3½" and 2½")

BB Shot

Ribs (M16A1 Rifle) (¼" to ½" in width not to exceed 4 ounces in weight, of appropriate length to fit the service weapon being used and produced of a non reflective material, able to withstand temperatures up to 112°F.)

4. Desirable Facilities. The following facilities are required to conduct training as outlined in Basic Rifle Marksmanship Course (83 Hr).

Night firing range

25-meter range, with foxholes and stumps

Field firing range

Target detection range (two required)

Record range

APPENDIX II

AMMUNITION

Section I

GENERAL

1. Authorization. This table is for use to requisition and issue, on order, Commanding General, United States Continental Army Command, ammunition for conduct of Basic Combat Training.

2. Directions for Use. This table prescribes the allowances for training authorized individuals of the United States Army undergoing basic combat training in peacetime.

Section II

AMMUNITION BREAKDOWN

1. Ammunition Required in Period or Exercise.

a. Preparatory Marksmanship and 25-meter firing:

PERIOD	POSITION	INDIV	RDS/DEMO	NOTES
1 & 2	- - - -	None		
3	Quick Kill		30/30-60	30 rds prac 30 rds demo
4	Quick Kill	30		
5	Quick Kill	30		
6	Night Firing	32		16 rds prac 16 rds record
7	- - - -	--	- - - -	- - - -
8	Prone	9	15/15-30	15 rds prac 15 rds demo
9	- - - -	--	- - - -	- - - -
10	Prone	9		
10	Prone Supported	3		
10	Sitting	9		
10	Squatting	9		
10	Kneeling Unsupported	9		
11	Kneeling Supported	9		
11	Standing	9		
11	Foxhole	9		
11	Standing to prone (rapid reloading exercise)	4	4/4 - 8	4 rds prac 4 rds demo
12	Foxhole or prone supported	12		Battlesight zero position, 25m from target.

PERIOD	POSITION	RDS/ INDIV	RDS/DEMO	NOTES
12	Refire weak positions (maximum of three)	9		
13	Corrective instruction	18		
16	Sitting	6		
16	Squatting	6		
16	Kneeling	6		
16	Standing	6		
18	Foxhole or prone supported	6		Confirmation of zero.
18	Standing to sitting (rapid reloading exercise)	4		
	TOTAL	244	98	

b. Field Firing Exercises:

PERIOD	RDS/INDIV	RDS/DEMO	NOTES
13	48	3/9 - 12	Tracer rds required. 3 rds prac 9 rds demo
14	36		
15	36		
16	24	4/8 - 12	4 rds reh 8 rds demo
17	40		
18	40		
19	36		
	TOTAL 260	24	

c. Target Detection:

PERIOD	CORR TO TD PERIOD	NO. OF PRES	BLANK RDS REQUIRED
10	1	8	280
11	2	8	280
13	3	4	80
14	4	4	376
15	5	4	368
17	6	4	---
19	7	4	600
20	8	8	240
21	9	8	480

d. Record Firing:

[redacted]	RDS/INDIV	RDS/DEMO
20	36	None
21	60	None
TOTAL	96	

2. Recapitulation of Ammunition Requirements:

Rds ball per individual	600
Rds ball per unit (demonstration and rehearsal)	110
Rds tracer (demonstration and rehearsal)	12
Rds blank per unit	2,704

APPENDIX III

SAFETY

1. PURPOSE.

This appendix is intended to supplement AR 385-63. The safety precautions listed below have general application and must therefore be supplemented by local regulations governing the operation of specific facilities; e.g., night firing ranges.

2. MECHANICAL TRAINING.

a. All rifles must be cleared prior to conducting mechanical training.

NOTE: A weapon is clear when the bolt is open and locked to the rear, the magazine is removed, the safety engaged, and the chamber void of ammunition.

b. A careful check of dummy rounds must be made to insure that no live ammunition is among them.

c. Toolboxes, spare parts boxes, or other containers in the vicinity of the training area must be checked to insure the absence of live ammunition.

3. RANGE FIRING.

a. BB guns will never be pointed at any individual due to the possibility of stuck BB's in supposedly empty guns.

b. Safety goggles will be worn at all times by all individuals on or near the firing line during BB gun firing because of the high ricochet rate of the BB's.

c. Care must be exercised in the cocking of the BB gun because of the tendency of this gun to fire during the cocking process thus causing the cocking lever to snap back, inflicting injury upon fingers. The correct method of cocking is described in Chapter 4, paragraph 9.

d. Dummy rounds must be checked to insure no live ammunition is among them.

e. Each rifle will be inspected by an officer or NCO prior to firing to insure there is no obstruction in the bore. Upon completion of firing, each rifle will be inspected to insure that it is clear.

f. Except while being used to conduct live or dry fire exercises, all rifles will have the bolts open and safeties engaged.

g. When a rifle is carried on the range, the muzzle will be angled up and down range.

h. During live fire exercises, all rifles present on the range will be presumed to be loaded and must therefore never be pointed at anyone or anything except the authorized targets.

i. During daytime live fire exercises, a red streamer will be displayed from a prominent location on the range.

j. During night firing exercises, a red flashing light and a red streamer will be displayed from prominent locations.

k. Live firing will not be conducted until all prescribed roadblocks have been established and all necessary range guards posted.

l. Ammunition will be issued only on command from the control tower.

m. Rifles will be loaded (or simulated loaded) only on command from the control tower.

n. Prior to firing, all individuals to include range personnel will be informed of the safety limits of the range.

o. When not being used, rifles will be placed in racks or in such a position as to be easily inspected to insure the bolts are open and safeties engaged.

p. Dry firing will not be conducted in rear of the firing line unless supervised by an officer or NCO.

q. Smoking is not permitted on the firing line or near ammunition.

r. Running is not permitted on the range.

s. Personnel will not move forward of the firing line until given clearance by the officer in charge.

t. Anyone observing an unsafe condition during firing exercises should give the command CEASE FIRING. When this command is given, it will be relayed immediately to the control tower operator who will command CEASE FIRING. The range safety officer is then responsible for investigating the unsafe condition, taking necessary corrective action, and verifying to the officer in charge that the unsafe condition has been corrected and firing may be resumed.

u. All personnel will be inspected for brass and ammunition and their weapons cleared prior to leaving the range.

4. SAFETY NONCOMMISSIONED OFFICERS.

a. The principal duty of safety NCO's is to enforce safety regulations to include inspecting weapons upon completion of firing to insure they can be safely removed from the firing line. Safety NCO's may also be used to critique and correct the firers' application of fundamentals, provided this duty does not interfere with their principal task of enforcing safety regulations.

b. Safety NCO's must understand the various signals necessary to insure safe operation of the range. If possible, each safety NCO should be equipped with a safety paddle to assist in giving these signals. Methods of giving signals with and without safety paddles are as follows.

(1) With safety paddles.

(a) NOT READY or NOT CLEAR -- The safety paddle is held over the head with the red side facing the control tower.

(b) READY or CLEAR -- The safety paddle is held over the head with the white side facing the control tower.

(2) Without safety paddles.

(a) NOT READY or NOT CLEAR -- The safety NCO faces the tower and extends both arms over his head with his hands clasped.

(b) READY or CLEAR -- The safety NCO faces the tower and extends his arms up and to his front with the palms of his hands toward the control tower.

APPENDIX IV

MAINTENANCE

1. General. The Army Quick Kill air rifle, a breakdown of which is illustrated in figure 20, must be maintained to insure proper functioning at all times. This appendix is a guide for commanders in establishing and conducting proper maintenance.

2. Maintenance of the Air Rifle. The air rifle used for "Quick Kill" training requires daily maintenance The daily maintenance is:

a. Clean the exterior of the weapon.

b. Clean the shot tube to remove all foreign matter.

c. Place 2 or 3 drops of oil into the main barrel in the hole marked "oil here" just forward of the receiver.

3. Malfunctions of the Air Rifle.

a. Most malfunctions result from foreign matter or jammed 3B shot in the shot tube. To remove the matter, the shot tube must be removed. The air rifle should be held with the muzzle pointing towards the ground, and shake the rifle allowing the foreign matter to slide away from the grooves of the shot tube. Remove the shot tube using just your hands to unscrew the shot tube from the weapon. Then clean the shot tube and barrel to remove all foreign matter. CAUTION: When shaking the weapon, do not hit the weapon against any object. If the shot tube cannot be removed by hand, a pair of pliers may be used to remove the shot tube. If pliers are used, it may strip the grooves on the shot tube, and the shot tube must be replaced.

b. If the weapon fails to cock, it is due to a defective flexible plunger head assembly, a defective trigger assembly, or a worn cocking lever. To replace one or more of these parts, follow the disassembly instructions in paragrapl

4. Disassembly and Assembly of the Air Rifle.

a. Disassembly: To disassemble the M4199, the following steps must be followed:

(1) First, remove the three stock screws on the air rifle, found on the top, right and left sides of the receiver near the stock. Next, separate the stock from the main barrel assembly by applying slight rearward pull on the stock. As the M4199 Air Rifle is disassembled, the parts will be laid out on a clean surface, from left to right, in the order of removal.

(2) Then remove the trigger assembly screw located on the left hand side of the rifle in the slot over the trigger assembly. Remove the trigger assembly by grasping the trigger and pulling it directly to the rear until the trigger assembly is free of the main barrel and receiver group.

(3) Take the cocking lever bolt wrench (figure 21) and remove the hex nut on the right hand side of the rifle that holds the cocking lever into position. Then remove the cocking lever by moving it as if you were going to cock the weapon. The cocking lever will fall free.

(4) To remove the flexible plunger head assembly, with the muzzle end against a stationary object such as a work bench, insert the plunger fork (figure 22 and 23). Push the plunger fork well forward until you are able to remove the spring anchor. After removing the spring anchor, release the pressure on the plunger fork and remove it from the weapon. Then take the main barrel and receiver assembly and point the muzzle into the air. The flexible plunger assembly should fall free, if it fails to fall free, tap the receiver on a table with the muzzle pointed into the air. Then remove the flexible plunger head assembly.

(5) After removing the flexible plunger head assembly, you may find that the plunger washer has remained in the main barrel. To remove this washer, push any type of a rod, such as a bore rod for the standard service weapon, through the bore, inserting the rod first through the muzzle end. The washer will then fall free.

b. Assembly: Before assembly, the soldier must insure that all parts are clean and operable. If the cocking lever, flexible plunger head assembly, or the trigger assembly is worn appreciably, it would be advisable to replace one or all of these parts. These spare parts are normally packed with each set of two air rifles. If you need additional replacement parts, see paragraph 5. To assemble the air rifle, replace the parts in the reverse order from disassembly.

(1) Replace the new or the original flexible plunger head assembly. Insert the flexible plunger head assembly back into the main barrel assembly with the plunger head section or the rod, entering the weapon first as it is laid out in figure 23. Grease must be placed on the plunger head case. This is the part that is perpendicular to the flexible plunger head at the rear of the plunger head assembly. Insure that the greased part is pointing down. Seat the flexible plunger head assembly fully forward using the plunger fork. Holding the plunger fork fully forward, insert the spring anchor (Part #62). Remove the plunger fork and insure that the plunger head assembly remained locked into position.

(2) Insert the trigger assembly until the screw holes are in line. (Do this by looking into the screw hole for the trigger assembly screw on the left side of the main barrel assembly.) After alining these holes, insert the trigger assembly screw and tighten it with a screwdriver.

(3) To reseat the cocking lever, place it into its normal closed position and aline the screw hole in the cocking lever with the screw holes for the cocking lever screw. Insert the cocking lever screw and screw it tight, but not so as to hinder the movement of the cocking lever. Replace the hex nut with the cocking lever bolt wrench.

(4) Reseat the stock, alining the screw holes in the main barrel assembly. Replace the three stock screws, but insuring that you replace the screw on the top last.

(5) This completes the assembly of the M4199 Air Rifle. To insure that it is assembled correctly, cock the weapon and attempt to fire it. Should the rifle fail to function, disassemble the weapon and inspect it for proper assembly. After locating the trouble, once again follow the steps for assembly. Repeat the process until the weapon operates correctly.

5. Replacement Parts. To order replacement parts for the M4199 Air Rifle, write direct to the Daisy Manufacturing Company, Rogers, Arkansas, and ask for the parts by name and number.

A list of the parts and their individual price is as follows:

25 ST	Shot Tube	$1.50 ea
98 L	Cocking Lever	$ .75 ea
99 B	Main Barrel	$2.50 ea
99 PH	Complete Plunger Assembly	$1.13 ea
99 S	Stock	$2.50 ea
99 SA	Screw Assortment	$ .25 ea
99 T	Trigger Assembly	$ .50 ea
99 F	Forearm and Pin	$1.50 ea

The following additional items may also be ordered direct from the Daisy Manufacturing Company:

Glasses	$ .60 ea
Plunger Fork	$7.50 ea
Cocking Lever Bolt Wrench	$2.50 ea

APPENDIX V

QUESTIONS AND ANSWERS

As an aid to the instructor, listed below are the most common questions asked by a soldier and the answers to them.

1. Question: Why do I have to wear these protective glasses?

   Answer: To prevent a BB ricochet from putting out your eye.

2. Question: I already wear prescription glasses. Why are they not enough protection?

   Answer: Because the force of the ricocheting BB is sufficient to shatter most prescription glasses; and, although the BB would probably not reach your eyes, fragments of glass would. You can still wear your prescription glasses with these safety glasses put on over them.

3. Question: Why do I keep both eyes open?

   Answer: Because your focus is sharper, your depth perception is more acute and your alinement is truer. When you close one eye, you reduce your visual efficiency by 50%.

4. Question: Why do you tell me to look at the top of an aerial target?

   Answer: For two reasons. First, your eyes are higher than the barrel. If your eyes are riveted on the top of the target, your line of fire will be toward the center of the target and not below it. Second, you need to learn how to focus on a point. If you look at the whole target, you will shoot all around it, but if you concentrate on the TOP EDGE your shot will be in there. Eventually, as you become more proficient, you will be able to look at any spot on the target and hit it. (This is why experienced "Quick Kill" shooters are able to shoot the paper center out of a washer).

5. Question: Why (if the soldier is right-handed) must I extend my left hand so far down the barrel toward the muzzle?

   Answer: Because it is your leading hand and it takes the weapon to the target, just as when you point at an object you extend the pointing arm in order to reduce the margin of error.

6. Question: Why do I miss so consistently below aerial targets?

   Answer: Because you look at the whole target instead of TOP EDGE or you are getting your head down too far on the barrel and having to drop the weapon out of the way so that you can see the target.

7. Question: Why do you say I can't shoot over the target?

   Answer: You can, but only by pointing the weapon over the top of the target or looking too far over the top of the target. If you are looking at the TOP EDGE, there is no way to shoot over it because to do so you would have to blot out the target with your barrel.

8. Question: Why do you say that small targets are no more difficult to hit than large ones?

Answer The apparent difficulty in hitting small targets is primarily psychological. In fact, regardless of size of target, if you miss it, you miss it by the same amount. If you concentrate on the TOP EDGE (whatever its size), you will hit it.

9. Question: Why is it important for me to always lean into the weapon whether target is aerial type or ground type?

Answer It might not make too much difference with an air rifle except that your balance is better; but, if you tried shooting a service weapon off-balance and leaning backward, you might wind up in the prone position looking at the sky.

10. Question: Why is it important for me to be able to see the BB?

Answer: Because it is "the poor man's tracer". You can see your own errors in addition to my explaining these errors.

11 Question: Why don't I lead, track or aim?

Answer: Simplicity is the key to "Quick Kill" fire It is reactive and spontaneous. It is not thought out, calculated or calibrated as in, say, artillery fire. In "Quick Kill" your eyes serve as built-in computers. That is why this method of fire is so fast and targets can be effectively engaged so quickly.

12. Question: Why do you tell me to slow down?

Answer: Because haste makes waste. If you jump at your target, you get off a jerky inaccurate shot. To be an effective, and skillful "Quick Kill" shooter, you must develop a smooth flowing rhythm in mounting the weapon and getting off a shot.

13. Question: Why must I look at the BOTTOM of a ground target, if I look at the TOP of an aerial one?

Answer: There are two reasons for this. First, it is a natural inclination to shoot over ground targets because of a tendency to overestimate distances and an urge to draw a comparison between the gun barrel and the target. By looking at the lower portion of the target and dropping the weapon down out of the line of sight, you are able to hit the target near the center of mass. Second, if you do miss, you want to be low so that there still remains the possibility of engaging the target with the ricochet. If you fire over the target's head, you have not only missed, but have no visible means of correcting the error. It's impossible to tell by how much you went over.

14. Question: Why do you insist that, if I miss a ground target, I do not shoot it again, but go to another target?

Answer: If you miss a ground target and see the strike of the bullet, you are inclined to do one of two things, eithr start to bracket the target, or shoot right back where you saw the erring bullet strike because your eyes are attracted to that point. You need to wipe that visual picture out of your mind. You do this by going to another target. Then you can return to the missed target.

15. Question: I find I can now effectively engage aerial targets and ground targets with the sightless air rifle with no trouble, but I am shooting at a range of 15 feet. How can I transfer this new found knowledge and ability to a service weapon with the protruding sights and when my range is many meters, not a matter of a few feet?

Answer: In the first place, you won't be shooting your service weapon at aerial targets. You were taught to do this with the air rifle simply to dramatically illustrate how much better you can shoot than you thought you could. In addition, you were learning how to hit moving targets. As far as ground targets are concerned, you fire on them with the service weapon exactly as you have done with the air rifle. You simply look over the sights (NOT AROUND THEM). You fasten your eyes on the intended point of impact (as an aid in training an orange spot is painted in lower center of E-Type silhouette), bring your weapon to your shoulder and LOOKING over the sights, pull the trigger. You will hit; and, with practice, you will be deadly at ranges to 100 meters and more. At far ranges and when you have plenty of time, use your sights. "Quick Kill" is just as the name implies. When an enemy target appears at a near range and your survival depends on speed and reaction combined with accuracy, "Quick Kill" is the answer.

APPENDIX VI

SUBJECT SCHEDULE

SECTION I

GENERAL

1. Purpose. This Army Subject Schedule provides uniform guidance in rifle marksmanship training for male military personnel without prior service in all components of the Army.

2. Training objective. The training objective is to develop in every soldier during basic combat training, the confidence, will, knowledge and skill to fire a rifle and hit enemy targets in combat.

3. General training notes. This subject schedule is a guide for commander and instructors in planning training, preparing lesson plans and for scheduling training.

(a) This course is to be presented under ATP 21-114, Basic Combat Training. It is designed to be presented on facilities listed in appendix 1 hereto. The course will be implemented on order, Commanding General, USCONARC.

(b) Training management will be guided by FM 21-5.

(c) The military instructor must be familiar with the principles and techniques defined and discussed in FM 21-6, Techniques of Military Instructions.

(d) Each hour of instruction in this subject schedule reflects 50 minutes of training time.

(e) Ammunition requirements are listed in appendix 3 hereto.

(f) The examination stage of the teaching process is covered in chapter 11 of FM 21-6. Time is provided in lesson outlines, section III, for testing. The instructor must exercise judgment and consider the level of the group in order to prepare and administer valid tests. Wherever practicable, tests should be of the performance type. Test questions must be clear and concise and capable of only one correct answer. Negative statements in test questions will be avoided.

SECTION II

MASTER SCHEDULE

4. Basic Rifle Marksmanship Course (83 Hr). This course is to be presented under ATP 21-114, Basic Combat Training. The course will be implemented on order, Commanding General, USCONARC.

P	H	Lesson	Text References	Area	Training Aids and Equipment
1	1	Orientation. History of the rifle Marksmanship program, development of the rifle and role of the Infantryman. Emphasize that basically <u>all</u> soldiers are Infantrymen.	FM 23-71, para 1-57, app C & H.	Classroom	None
2	4	Mechanical training: Integrated conference, demonstration and practical exercise on nomenclature, disassembly, assembly,	FM 23-8, para 1-28. FM 23-71 para 18d, app B. FM 23-9, para 1-21.	Classroom	T(GTA) 7-1-2, Chart, Cycle of Operation, M14 Rifle; TF 9-2970.

P	H	Lesson	Text References	Area	Training Aids and Equipment
		adjustment of sight tension, rear sight calibration, functioning, stoppages and immediate action, care and cleaning, lubricating, loading and unloading of the rifle.			
3	4	Air Rifle Training: Integrated conference, demonstration, and practical exercise. Introduction to Quick Kill, aerial target and ground target engagement.	Training Text 23-71-1	Night firing range. (optional)	Air rifle M4199, 3½" and 2½" disc targets, ground target device (1 for each 2 students) safety goggles (1 for each student).
4	2	Transition to M14/M16A1 with ribs: Practical exercise-firing 10 rds at each 15, 30, and 50 meters.	Training Text-23-71-1	Night firing range.	Safety paddle, one per safety NCO. (fig 118,FM 23-71); One wooden rib per M14/M16A1 rifle. Tape on rear sight aperture, M14/M16A1 rifle.
5	2	M14/M16 Firing without ribs: Practical exercise - firing 10 rds at each 15, 30, and 50 meters.	Training Text - 23-71-1	Night firing range.	Safety paddle, one per safety NCO. (fig 118, FM 23-71).
6	3 (1)	Night firing: integrated conference, demonstration of principles of night vision, scanning, and detection of targets during periods of limited visibility using Quick Kill techniques.	Training text - 23-71-1	Night firing range with bleachers.	Charts - construction of human eye, off center vision. Blackout lights as required.
	(2)	Practical exercise night firing.	Training Text - 23-71-1	Night firing range - 25, 50, and 75 [illegible]	One safety paddle per safety NCO. (fig 118, FM 23-71)
7	2	Introduction to marksmanship training: Integrated conference, demonstration and practical exercise. Integrated act of shooting, use of combat equipment in firing, aiming, to include importance of sight alinement, placement of the aiming point, focus of the eye, steady hold factors, with emphasis on trigger control, aids in aiming.	FM 23-71, para 5-9, 43; app B and G. FM 23-9, para 22-24	25 meter range.	T(GIA) 7-1-2, Chart, importance of correct Sight Alinement (fig 5, FM 23-71); T(GIA) 7-1-2, Chart, Sight steady hold factors (fig 115, FM 23-71); Sight picture model (fig 112, FM 23-71).

	H	Lesson	Text References	Area	Training Aids and Equipment
8	4	Preparatory marksmanship training: Integrated conference, demonstration and practical exercise: Range procedures safety, aiming, 25 meter target, explanation and demonstration of prone position, duties of the coach, practical work in the prone position, demonstration firing by a well-trained rifleman, follow through, calling the shot, use of the firing data card, effects of errors, functioning of the rear sight, elevation and windage rule, ball and dummy exercises and recoil demonstration.	FM 23-71, para 6-16; app B, C, & G. FM 3-9, para 22-24, 30-36	25 Meter range.	Rear sight model (fig 113, FM 23-71) Blackboard, firing data card, one per student (fig 24, FM 23-71); Metallic target (fig 117, FM 23-71) Safety paddle, one per safety NCO (fig 118, FM 23-71); Dummy rounds as required.
9	2	Integrated conference, demonstration and practical exercise in target box exercises, shot group analysis card, prone supported position, review of ball and dummy exercises.	FM 23-71, para 10, 15; app B, C, and G.	25 Meter range.	Rifle rest, target box, target disc, one per two students (fig 29, FM 23-71); Shotgroup analysis card, one per student (fig 22, FM 23-71); Dummy rounds, as required; Metallic target (fig 117, FM 23-71).
10	8	Practical work in firing.			
	(6)	Integrated conference, demonstration and practical exercise: Practice firing from the prone, prone supported, sitting, squatting, and kneeling unsupported firing positions. Conduct a progress check of these positions.	FM 23-71, para 10, 17; app B, C, and G. FM 23-9, para 22-24	25 Meter range.	Safety paddle, one per safety NCO (fig 118, FM 23-71); Shot group template, one per safety NCO (fig 33, FM 23-71).
	(2)	Target detection: Integrated conference, demonstration and practical exercise: target indications, selection of observation position, methods of search, locating single stationary targets and range determination. Practical exercise in locating and determining range to single stationary targets.	FM 23-71, Ch 5, app B, F, and G; FM 21-75, para 21-23, 37-40.	Target detection range.	T(GTA) 7-1-2, Target Detection (fig 120, FM 23-71) Blackboard; Target Detection Answer Sheet (one per student) (fig 106, FM 23-71).

P	H	Lesson	Text References	Area	Training Aids and Equipment
11	7	Practical work in firing.			
	(5)	Integrated conference, demonstration and practical exercise: Practical work in firing from the kneeling supported, standing and foxhole positions and rapid reloading. Conduct progress check of these positions.	FM 23-71, para 10, 17, 21; app B, C, and G. FM 23-9, para 22-24.	25 meter range.	Safety paddle, one per safety NCO (fig 118, FM 23-71); shot group template (fig 33, FM 23-71), one per safety NCO.
	(2)	Target detection: Integrated conference, demonstration and practical exercise. Locating, marking and determining range to single stationary targets.	Same as period 10.	Target detection range.	T(GTA) 7-1-2, Chart, Target Detection, (fig 120, FM 23-71); Blackboard, one target Detection Answer Sheet per student (fig 106, FM 23-71).
12	4	25 Meter firing.			
	(3)	Integrated conferences, demonstration and practical exercise: Review sight changes, explain the principles of battlesight zeroing and rear sight calibration, practical exercise in battlesight zeroing.	FM 23-71, para 16-18; app B, C, and G. FM 23-9, para 30-36.	25 meter range.	Rear sight model (fig 113, FM 23-71); Principles of battlesight Zero. (fig 35, FM 23-71).
	(1)	Integrated conference, demonstration and practical exercise: Refire any firing position that the student failed on previous progress checks (max of three positions). Remedial instruction and firing for those students who failed to obtain their 250 meter battlesight zero.	FM 23-71, para 10, 16-18, app B, C, and G. FM 23-9, para 22-24, 30-36.	25 meter range.	Shot group template, (fig 33, FM 23-71) one per safety NCO. Safety paddle, one per safety NCO (fig 118, FM 23-71).

P	H	Lesson	[illegible]	Area	Training Aids and Equipment
13	8	Field firing and target detection	FM 23-71, para 19-20, 23, 25-27; app B, C, and G.	Field firing range.	Fixed sight alinement device (fig 114, FM 23-71); Automatic target device (M31A) with E type silhouette (fig 39, FM 23-71); Safety paddle, one per safety NCO (fig 118, FM 23-71).
	(4)	Introduction to field firing, use of the adjusted aiming point method of target engagement, effects of wind, integrated conference, demonstration and practical exercise firing on targets at various ranges.			
	(2)	Preparatory Marksmanship: Integrated conference and practical exercise to correct any weaknesses noted in the integrated act of shooting.	FM 23-71, para 9-10; app B, C, and G.	[illegible] Meter range.	As required.
	(2)	Target detection, integrated conference, demonstration and practical exercise in detecting and simulating engaging single moving targets.	FM 23-71, para 36-38; app B, C, and G; FM 21-75, para 21-23, 37-40.	Target detection [illegible] range.	T(GTA) 7-1-2, Chart, Single Moving Targets (fig 121, FM 23-71). Target detection answer sheet (fig 107, FM 23-71).
14	4	Field firing and target detection.			
	(2)	Field firing: Integrated conference, demonstration and practical exercise by reviewing the fundamentals of firing positions and field firing on simulated advancing targets.	FM 23-71, para 10, 19-20, 23, 25-26; app B, C, and G. FM 23-9, para 22-24	Field firing range.	One safety paddle per safety NCO (fig 118, FM 23-71).
	(2)	Target detection: Integrated conference, demonstration and practical exercise in locating and marking multiple moving targets. Review range determination.	FM 23-71, Ch 5, app B, F, and G; FM 21-75, para 21-23, 37-40.	Target detection range.	T(GTA) 7-1-2, Chart, Multiple Moving Targets (fig 122, FM 23-71) Aiming device, as per range requirements (fig 52, FM 23-71).
15	4	Field firing and target detection.			
	(2)	Field firing: Review range procedures, use of the adjusted aiming point method of target engagement, firing at surprise targets.	FM 23-71, para 19-27; app B, C, and G.	Field firing range.	One safety paddle per safety NCO (fig 118, FM 23-71).

[illegible]

P	H	Lesson	Text References	Area	Training Aids and Equipment
	(2)	Target detection: Integrated conference, demonstration and practical exercise in use of a sector sketch and locating single and multiple targets by sound.	Same as period 14	Target detection range.	Blackboard.
16	4	Field firing and 25 meter firing.			
	(2)	Field firing: Integrated conference, demonstration and practical exercise in moving with a loaded weapon, assuming positions rapidly and engaging surprise targets.	Same as period 14	Field firing range.	Safety paddle, one per safety NCO (fig 118, FM 23-71).
	(2)	25 meter firing: Integrated conference, demonstration and practical exercise in reviewing marksmanship fundamentals. Firing from the sitting, squatting, kneeling and standing positions.	FM 23-71, ch 2, para 19-27; app B, C, and G. FM 23-9, para 22-24.	25 meter range.	As required: Safety paddle, one per safety NCO (fig 118, FM 23-71).
17	4	Field firing and target detection.			
	(2)	Field firing: Integrated conference, demonstration and practical exercise in range procedures, review fundamentals of moving with a loaded weapon and assuming positions rapidly, practical exercise in rapid reloading.	Same as period 14.	Field firing range.	Safety paddle, one per safety NCO (fig 118, FM 23-71).
	(2)	Target detection: Integrated conference, demonstration and practical exercise, introduction to combat movements, personal camouflage, practical work in camouflage and movement skills.	FM 23-71, ch 5, app B, F, and G; FM 21-75, para 9, 21-23, 37-40.	Target detection range.	As required.
18	4	Field firing and 25 meter firing.			
	(2)	Field firing: Integrated conference, demonstration and practical exercise, in engaging linear	FM 23-71, para 19-27; app B, C, and G. FM 23-9 para 28, 29.	Field firing range.	Safety paddle, one per safety NCO (fig 118, FM 23-71).

H	Lesson	Text References	Area	Training Aids and Equipment
	surprise targets, practice in rapid reloading and immediate action.			
(2)	25 meter firing: Integrated conference, demonstration and practical exercise, range procedures, safety, confirmation of battlesight zero and review the adjusted aiming point method of target engagement, assuming positions rapidly and reloading exercise.	FM 23-71, para 10, 20, 21; app B, C, and G. FM 23-9, para 28, 29.	25 meter range.	Safety paddle, one per safety NCO (fig 118, FM 23-71) and as required.
4	Field firing and target detection.			
(2)	Field firing: Integrated conference, demonstration and practical exercise, range procedures, method of engaging linear type targets, rapid reloading and immediate action, summary of the fundamentals of rifle marksmanship.	FM 23-71, ch 2, para 19-27; app B, C, and G.	Field firing range.	Safety paddle, one per safety NCO (fig 118, FM 23-71).
(2)	Target detection: Integrated conference, demonstration and practical exercise in locating and marking a combination of sound and moving targets. Review target detection principles.	FM 23-71, ch 5, app B, F, and G. FM 21-75, para 21-23, 37-40.	Target detection range.	Aiming device, per range requirement (fig 52, FM 23-71), Chart, Target Detection (fig 120, FM 23-71); Chart, Multiple moving targets (fig 122, FM 23-71).
4	Record firing I and target detection.			
(3)	Record firing I: Integrated conference, demonstration and practical exercise; orientation and conduct of record firing I, detecting and engaging single stationary combat type targets in their natural surroundings.	FM 23-71, ch 6, app B, C, and G.	Record [redacted].	Record I score sheet, (fig 82, FM 23-71); safety paddle, one per safety NCO (fig 118, FM 23-71).
(1)	Target detection: Integrated conference and practical exercise in locating and determining range to single stationary targets, TD Test I.	FM 23-71, ch 5, app B, and F.	Target detection range.	TD Test I, Answer Sheet (fig 106, FM 23-71).

P	N	Lesson	Text References	Area	Training Aids and Equipment
21	4	Record firing II and target detection.			
	(2)	Record firing II: Integrated conference and practical exercise; conduct of record firing II, detecting and engaging multiple stationary combat targets in their natural surroundings.	Same as period 20.	Record firing range.	Record II score sheet, (fig 82, FM 23-71); safety paddle, one per safety NCO (fig 118, FM 23-71).
	(2)	Target detection: Integrated conference and practical exercise in locating, marking single and multiple moving targets and locating targets by sound; TD Test II and III.	Same as period 20.	Target detection range.	Aiming device (fig 52, FM 23-71) per range requirement, TD test 2 and 3 answer sheets (fig 110, FM 23-71).

LESSON OUTLINES

5. Basic Rifle Marksmanship Course

a. First Period (1 Hr)

(1) Lesson objective: To orient the soldier on the role of the rifleman and the course of instruction.

(2) Lesson outline.

(a) Introduce the subject by presenting an orientation on the course of instruction. (20 min)

(b) Discuss the development of the rifle and the role of the rifleman. (20 min)

(c) Review period of instruction. (10 min)

b. Second Period (4 Hr)

(1) Lesson objective: To acquaint the soldier with the capabilities and limitations of his rifle and to motivate him to become an expert rifleman. To teach the soldier the nomenclature, disassembly, assembly, adjustment of sight tension, functioning, stoppages and immediate action, care and cleaning, lubricating, loading and unloading of the rifle.

(2) Lesson outline:

(a) Organize the class into eight or ten man groups, check for clearance of rifles and inspect dummy rounds. Introduce the subject by outlining the scope of instruction. Point out the outside nomenclature of the rifle. (10 min)

(b) Explain, demonstrate and conduct practical work in the disassembly of the rifle to the extent of field stripping. (25 min)

(c) Discuss nomenclature of parts by conference and practical work. (10 min)

(d) Explain, demonstrate and conduct practical work in the assembly of the rifle. (25 min)

(e) Explain, demonstrate and conduct practical work in adjustment of sight tension. (15 min)

(f) Explain and demonstrate calibration of the rear sight. (15 min)

(g) Discuss functioning. (35 min)

(h) Demonstrate and conduct practical work in loading and unloading the rifle to include single rounds, magazines and five round cartridge clips. (15 min)

(i) Discuss stoppages. Explain, demonstrate and conduct practical work in application of immediate action. (15 min)

(j) Explain proper care and cleaning of the rifle. (20 min)

(k) Explain and conduct practical work in application of rifle lubricants. (5 min)

(l) Summarize period of instruction. (10 min)

c. Third Period (4 Hr)

(1) Lesson objectives: To introduce the soldier to the Quick Kill techniques, the correct firing position, and to teach the soldier to accurately engage both aerial and ground targets with the air rifle.

(2) Lesson outline:

(a) Introduction. (5 min)

(b) Demonstrate and discuss the Quick Kill techniques to include the proper firing and coaching position. (40 min)

(c) Summary. (5 min)

(d) Practical exercise in firing at aerial targets using the Quick Kill techniques. (90 min)

(e) Practical exercise in firing at ground targets using the Quick Kill techniques. (45 min)

(f) Summary. (15 min)

d. Fourth Period (2 Hr)

(1) Lesson objectives: To teach the soldier to correctly assume the Quick Kill firing position with the M14 rifle and to accurately engage E-type silhouettes using the Quick Kill techniques at ranges up to 50 meters.

(2) Lesson outline:

(a) Introduction. (5 min)

(b) Demonstrate and conduct practical exercise in engaging E-type silhouette targets firing 10 rounds at each range of 15, 30, and 50 meters with a rib on the M14 rifle. (80 min)

(c) Summary. (15 min)

e. Fifth Period (2 Hr)

(1) Lesson objectives: To teach the soldier to accurately engage E-type silhouette targets with the M14 rifle without a rib at ranges up to 50 meters.

(2) Lesson outline:

(a) Introduction. (5 min)

(b) Practical exercise in engaging E-type silhouette targets firing 10 rounds at each range of 15, 30, and 50 meters without a rib on the M14 rifle. (80 min)

(c) Summary. (15 min)

f. Sixth Period (3 Hr)

(1) Lesson objectives: To introduce the soldier to the principles of night vision, scanning, and detection of targets during periods of limited visibility using Quick Kill techniques, and to teach the soldier to accurately engage E-type silhouettes at ranges out to the limit of visibility.

(2) Lesson outline:

(a) Introduction. (5 min)

(b) Discuss the principles and techniques used during periods of limited visibility. (45 min)

1. Night Vision

2. Scanning

3. Quick Kill

4. Detection of Targets

(c) Practical exercise in engaging E-type silhouette targets at two ranges, 25 and 50 meters, or 50 and 75 meters, depending on the light conditions. (95 min)

1. Practice firing 16 rounds at two ranges using the Quick Kill techniques.

2. Record firing 16 rounds at two ranges using the Quick Kill techniques.

(d) Summary. (5 min)

g. Seventh Period (2 Hr)

(1) Lesson objectives: To introduce the soldier to marksmanship training with emphasis on fundamentals to include the integrated act of shooting and aids to achieve proper aiming.

(2) Lesson outline:

(a) Discuss the integrated act of shooting, emphasizing the basic requirements for good marksmanship. Explain why combat equipment is worn on the range. (15 min)

(b) Discuss aiming to include sight alinement, placement of the aiming point, focus of the eye and importance of sight alinement. (30 min)

(c) Discuss the steady hold factors with particular emphasis on trigger control. (20 min)

(d) Discuss training aids and their value in learning the correct sight picture. (15 min)

(e) Review. (10 min)

(f) Summary. (10 min)

h. Eighth Period (4 Hr)

(1) Lesson objectives: To show the soldier his need for additional instruction to develop a sound base of marksmanship fundamentals; to teach shooting as an integrated act; and to provide early corrective instruction to those soldiers having difficulty in applying these fundamentals.

(2) Lesson outline.

(a) Introduce the period by orienting the soldier on the sequence of instruction and how it will apply in later periods of instruction. Explain and issue progress folders. (10 min)

(b) Discuss the range facilities to include a discussion and demonstration of range procedures and safety requirements for conduct or preparatory marksmanship training. (15 min)

(c) Review aiming to include the 25 meter target. (10 min)

(d) Summary. (5 min)

(e) Conduct the recoil demonstration. Demonstrate the prone position to include application of the steady hold factors emphasizing trigger control. Discuss and demonstrate the position and duties of the coach. (25 min)

(f) Conduct practical work in firing from the prone position. (45 min)

(g) Introduce and conduct a firing demonstration by a well-trained rifleman. Have soldiers compare their targets with that of the demonstrator. (10 min)

(h) Discuss the shot group analysis card and explain practical application to training by discussing errors noted in their practical exercise. (10 min)

(i) Explain and demonstrate follow-through and calling the shot. (10 min)

(j) Explain and conduct practical work in the use of the firing data card. (15 min)

(k) Review effects of errors. Establish sample shot groups by integrating calling the shot, use of the firing data card and shot group analysis. (15 min)

(l) Review the functioning of the rear sight. Explain the elevation and windage rule, conduct practical work in applying the factors of the elevation and windage rule. (15 min)

(m) Explain and demonstrate the duties of the coach during the conduct of the ball and dummy exercise. (15 min)

i. Ninth Period (2 Hr)

(1) Lesson objective: To provide the soldier with additional areas of consideration in marksmanship fundamentals and employ them by firing the rifle.

(2) Lesson outline.

(a) Introduce the period and explain tie-in with previous and subsequent instruction. (5 min)

(b) Explain and demonstrate the target box exercise. (10 min)

(c) Conduct target box exercise. (40 min)

Instructor's note: Insure that each firer and marker examine and critique each shot group with the aid of the shot group analysis card. Assistant instructors must make on the spot corrections and give instruction to those having difficulty. Those having consistent errors should be sent to the corrective instruction area.

(d) Explain and demonstrate the prone supported position emphasizing the eight steady hold factors. (10 min)

(e) Explain and demonstrate duties of the coach to include a review of the ball and dummy exercise. (5 min)

(f) Explanation of firing exercise and summary. (10 min)

(g) Review common errors noted during practical exercise. (10 min)

(h) Summary. (10 min)

j. Tenth Period (8 Hr)

(1) Lesson objective: To give practical work in firing from the prone, prone supported, sitting, squatting, and kneeling unsupported firing positions. To conduct, concurrently with the position firing, a progress check of the above positions. To develop in the soldier the skills required in locating, marking and determining the range to realistic battlefield targets. To provide individual corrective instruction by means of dry firing exercises to those firers making serious errors.

(2) Lesson outline. (25-meter firing)

(a) Review the prone positions, safety and range procedures. (20 min)

(b) Conduct practical work in firing from the prone, and prone supported firing positions. (100 min)

(c) Explain and demonstrate the open legged, cross ankled, cross legged, sitting positions. (10 min)

(d) Conduct practical work in the sitting position. (50 min)

(e) Explain and demonstrate the squatting position. (10 min)

(f) Conduct practical work in the squatting position. (50 min)

(g) Explain and demonstrate the kneeling unsupported position. (10 min)

(h) Conduct practical work in the kneeling unsupported position. (50 min)

Instructor's note: A progress check of each of the above positions will be conducted during the respective practical work exercise. Emphasis must be placed on the application of the eight steady hold factors and the ball and dummy exercise should be used. Include summary and review as necessary.

(3) Lesson outline. (Target detection)

(a) Introduction and explanation of the target detection phase of instruction. (5 min)

(b) Explain and demonstrate target indications. (10 min)

(c) Discuss how to select an observation position and the methods of search. (15 min)

(d) Explain how to mark targets and determine range. (15 min)

(e) Summary. (5 min)

(f) Conduct practical work in locating and determining the range to single stationary targets (6 trials). (45 min)

(g) Summary. (5 min)

Instructor's note: See sample trial sheet in FM 23-71.

k. Eleventh Period (7 Hr)

(1) Lesson objective: To give practical work in firing from the kneeling supported, standing and foxhole positions. To conduct, concurrently with the position firing, a progress check of the above positions. To provide instruction and practical exercises in rapid reloading and to review the principles of locating, marking, and determining the range to single stationary targets.

(2) Lesson outline. (25-meter firing)

(a) Explain and demonstrate the kneeling supported firing position. (10 min)

(b) Conduct practical work in firing from the kneeling supported firing position. (50 min)

(c) Explain and demonstrate the standing position. (10 min)

(d) Conduct practical work in firing from the standing position. (50 min)

(e) Explain and demonstrate the foxhole position. (10 min)

(f) Conduct practical work in firing from the foxhole position. (50 min)

(g) Review magazine changing. (10 min)

(h) Explain and demonstrate rapid reloading exercise. (10 min)

(i) Conduct rapid reloading exercise. (40 min)

(j) Summary. (10 min)

Instructor's note: Progress check of each of the above positions to be conducted during the respective practical work exercise.

(3) Lesson outline. (Target detection)

(a) Introduce and review to include target indications, selection of observation position, methods of search, marking targets, and determining range. (10 min)

(b) Practical exercise in locating, marking, and determining range to single stationary targets. (80 min)

(c) Review to include importance of target detection, target indications, observation position, methods of search, determining range, and marking targets. (10 min)

Instructor's note: See sample trial sheet in FM 23-71.

1. Twelfth Period (4 Hr)

(1) Lesson objective: To review the principles of sight changes, battlesight zeroing, determination of the battlesight zero and calibration of the rear sight. To determine the firer's knowledge of marksmanship fundamentals by means of a conference and review.

(2) Lesson outline.

(a) Review principles of the rear sight adjustments and effects of a sight change. (15 min)

(b) Explain the principles of battlesight zeroing. (35 min)

(c) Conduct practical exercise in battlesight zeroing and calibration of the rear sight. (100 min)

(d) Refiring of individuals in those positions in which they are weak and/or remedial instruction and firing to obtain a battlesight zero. (30 min)

m. Thirteenth Period (8 Hr)

(1) Lesson objectives: To introduce the soldier to firing on field targets at various ranges from different positions using the adjusted aiming point technique. To improve the basic shooting ability by additional instruction and practical work on marksmanship fundamentals on the 25 meter range, and to give the soldier practice in locating, marking and engaging single moving targets.

(2) Lesson outline. (25-meter firing)

(a) Explanation of range procedures, review of safety precautions and organization of the class. (10 min)

(b) Practical work using the rifle rest, target box, and disc and review positions. (30 min)

(c) Discuss previous weaknesses from periods six, seven, and eight. (10 min)

(d) Practical work to correct any dificiencies from periods six, seven, and eight. (50 min)

(3) Lesson outline. (Field firing)

(a) Explanation of range procedures and safety precautions. (15 min)

(b) Explanation and demonstration of fundamentals of firing positions. (10 min)

(c) Explanation and demonstration of the adjusted aiming point, using tracer ammunition. (10 min)

(d) Organization of firers. (10 min)

(e) Practical exercise in firing from various positions using the adjusted aiming point technique. (145 min)

(f) Summary. (10 min)

(4) Lesson outline. (Target detection)

(a) Introduction. (5 min)

(b) Explanation and demonstration of detecting single moving targets and engaging factors. (30 min)

(c) Integrated conference, demonstration, and practical exercise in locating and engaging single moving targets. (60 min)

(d) Summary. (5 min)

Instructor's note: See sample trial sheet in FM 23-71. Upper 50 percent of class (based on previous progress checks) conduct field firing. Lower 50 percent conduct target detection and 25-meter firing. The two groups then rotate.

n. Fourteenth Period (4 Hr)

(1) Lesson objective: To give the soldier instruction and practice in firing on simulated advancing targets, and practice in locating and marking multiple moving targets. Discussion of engaging several dispersed targets.

(2) Lesson outline. (Field firing)

(a) Explanation of range procedures, safety and organization. (5 min)

(b) Review fundamentals of firing positions. (10 min)

(c) Practical exercise firing on simulated advancing targets. (75 min)

(d) Critique of exercise stressing importance of fundamentals. (10 min)

Instructor's note: Although time of target exposure is considered important, the practice of basic concepts can not be overlooked. Corrections and critiques between target exposures are considered essential.

(3) Lesson outline. (Target detection)

(a) Introduction. (5 min)

(b) Discussion of marking factors with multiple moving targets. (30 min)

(c) Discussion of engaging factors with multiple moving targets (10 min)

(d) Review principles of range determination. (5 min)

(e) Integrated conference, demonstration, and practical exercise in detecting and marking multiple moving targets. (45 min)

(f) Summary. (5 min)

o. Fifteenth Period (4 Hr)

(1) Lesson objective: To give the soldier practice in engaging surprise targets on the field firing range and practice in locating targets by sound.

(2) Lesson outline. (Field firing)

(a) Review range procedures and safety. (10 min)

(b) Review fundamentals of aiming and use of the adjusted aiming point technique. (10 min)

(c) Explanation, organization, and conduct of practical exercise in firing at surprise targets. (80 min)

Instructor's note: See instructor's note for period 11

(3) Lesson outline. (Target detection)

(a) Introduction. (10 min)

(b) Explanation of a sector sketch. (20 min)

(c) Explanation and demonstration of locating single and multiple hostile positions by sound. (10 min)

(d) Integrated conference, demonstration, and practical exercise in locating single and multiple hostile positions by sound. (60 min)

p. Sixteenth Period (4 Hr)

(1) Lesson objective. To give the soldier practice in moving with a loaded weapon, assuming positions rapidly, engaging surprise targets, and a review of marksmanship fundamentals on the 25-meter range.

(2) Lesson outline. (Field firing)

(a) Organization and explanation of range procedures and review of safety. (10 min)

(b) Explain and demonstrate moving with a loaded weapon and engaging combat type targets with emphasis on assuming a good firing position. (10 min)

(c) Practical exercise in advancing on targets and engaging them as they appear. (70 min)

(d) Summary. (10 min)

(3) Lesson outline. (25-meter firing)

(a) Organization and review of range procedures. (10 min)

(b) Review fundamentals of 25-meter firing. (10 min)

(c) Practical exercise firing from sitting, squatting, kneeling and standing positions. (70 min)

(d) Summary. (10 min)

q. Seventeenth Period (4 Hr)

(1) Lesson objective: To give the soldier practice in engaging surprise targets from specified and optional positions while advancing. To give practice on reloading and applying immediate action, target detection, and camouflage and movement skills.

(2) Lesson outline. (Field firing)

(a) Organization and explanation of range procedures. (10 min)

(b) Review fundamentals applicable to movement and assuming positions rapidly. (10 min)

(c) Practical exercise in rapid reloading, moving, and assuming positions rapidly. (70 min)

(d) Summary with emphasis in correction of fundamentals. (10 min)

Instructor's note: To incorporate rapid reloading, a single round is recommended to be loaded at the first of each phase with the subsequent requirement to load the magazine. A dummy round should be included in the magazine to necessitate application of immediate action.

(3) Lesson outline. (Target detection)

(a) Introduction to combat movements. (10 min)

(b) Explanation and demonstration of personal camouflage. (10 min)

(c) Practical work in camouflage. (15 min)

(d) Explanation and demonstration of movement. (15 min)

(e) Practical work in movement skills. (45 min)

(f) Summary. (5 min)

r. Eighteenth Period (4 Hr)

(1) Lesson objective: To give the soldier practice in engaging surprise targets from the foxhole and selected positions. Practice in rapid reloading, immediate action, and confirmation of the battlesight zero. Review the principles of the adjusted aiming point technique.

(2) Lesson outline. (Field firing)

(a) Explanation and demonstration of range procedures to include method of engaging multiple targets. (15 min)

(b) Practical work in engaging multiple targets, rapid reloading, and immediate action. (80 min)

(c) Summary with emphasis on fundamentals of shooting. (5 min)

(3) Lesson outline. (25-meter firing)

(a) Review range procedure and safety. (5 min)

(b) Confirmation of battlesight zero. (45 min)

(c) Review the use of adjusted aiming point technique. (10 min)

(d) Practice in assuming firing positions rapidly and reloading. (35 min)

(e) Summary. (5 min)

s. Nineteenth Period (4 Hr)

(1) Lesson objective: To give the soldier practice in engaging multiple surprise targets while moving. To give practice in reloading, applying immediate action, and practice in locating and marking combat-type targets that move and shoot.

(2) Lesson outline. (Field firing)

(a) Explanation and demonstration of range procedure to include method of engaging linear type targets. (15 min)

(b) Practical exercise in engaging linear type targets, rapid reloading, and immediate action. (75 min)

(c) Summary of instruction with emphasis on fundamentals of marksmanship. (10 min)

(3) Lesson outline. (Target detection)

(a) Introduction. (5 min)

(b) Explanation and demonstration of locating and marking a combination of sound and moving targets. (10 min)

(c) Practical work in locating and marking a combination of sound and moving targets. (60 min)

(d) Review all principles of target detection. (20 min)

(e) Summarize period of instruction. (5 min)

t. Twentieth Period (4 Hr)

(1) Lesson objective: To test the soldier's ability to detect and engage single stationary type targets in their natural surroundings at unknown ranges and to locate, mark, and determine the range to single stationary combat-type targets.

(2) Lesson outline.

(a) Orientation and organization of firers. (15 min)

(b) Warm-up with air rifle on ground target device. (15 min)

(c) Record firing I. (120 min)

(d) Target detection test I. (50 min)

Instructor's note: Orientation to be conducted on record range to include demonstration on one lane of the course. Recommend that one-half of unit receive a concurrent period of ATP training while the remaining half engages in record firing I and target detection test I.

a. Twenty-first Period (4 Hr)

(1) Lesson objective: To test the soldier's ability to fire rapidly and accurately at single and multiple combat-type targets in their natural surroundings and at single and multiple moving targets. To detect targets by sound on the target detection range.

(2) Lesson outline. (Record firing II and target detection tests II and III)

(a)	Organization of firers and orientation.	(20 min)
(b)	Record firing II	(60 min)
(c)	Target detection test II	(50 min)
(d)	Target detection test III	(50 min)

APPENDIX VII

COMMON ERRORS AND REMEDIES

(Air rifle instruction)

1. AERIAL FIRING.

Common Errors	Remedies
a. Consistently missing below an aerial target.	1. Be sure head is high over stock. 2. Visualize imaginary target above real target. 3. Check that soldier is not pointing weapon, but LOOKING at target.
b. Inconsistent effective engaging of an aerial target.	1. Slow down and develop rhythm. 2. Concentrate on TOP EDGE of target. 3. Instructor watch for improper head position. 4. Check position of weapon against shoulder and jaw against stock. 5. Coach check himself: Has coaching and encouraging been intermittent instead of continuous?
c. Consistently missing aerial targets to left or right.	1. Check for dominant eye. 2. Head position (might be looking down side of barrel instead of over it, causing same effect as driving car with head out the window).
d. Consistently missing over aerial targets.	1. There is no way to miss over an aerial target unless shooter "points" his weapon. If he is looking at his target only, it is impossible to shoot over it because he would block target out with his barrel.

2. GROUND FIRING.

Common Errors	Remedies
a. Consistently missing over ground targets.	1. Get weapon out of way and concentrate on "base point" so that soldier won't make comparison between muzzle and target. 2. Jab or "stick" weapon from low port position to target instead of flagging or swinging to target. 3. Lock weapon into position against shoulder, stock-welded to jaw.
b. Inconsistent effective engaging of ground targets	1. Coach check himself: Has coaching and encouraging been intermittent instead of continuous? 2. Concentration on orange spot. 3. Slow down and develop rhythm.

Common Errors	Remedies
c. Consistent missing to left or right.	1. Check for dominant eye. 2. Head position (might be looking down side of barrel instead of over it, causing same effect as driving car with head out the window).

[redacted] VIII

CHECK LIST

1. AERIAL TARGET M8 INSTRUCTION:

   a. Are PROTECTIVE GLASSES in place?

   b. Have you checked soldier's MASTER EYE?

   c. Is soldier's head ERECT?

   d. Does soldier have BOTH eyes open?

   e. Is soldier's LINE of VISION 2" to 3" ABOVE plane of barrel?

   f. Is soldier LOOKING PROPERLY at his target or is he aiming, tracking or leading?

   g. Does soldier have a GOOD SOLID stock weld?

   h. Is soldier's weapon LOCKED into POCKET of his shoulder?

   i. Is soldier's LEADING or POINTING hand well extended beyond balance of his weapon? This is necessary because this is the hand that takes weapon to target. Be sure fingers are not over barrel where they would attract eyes.

   j. Is soldier LEANING into his weapon?

   k. Are soldier's feet COMFORTABLY spread with weight on the BALLS of both feet?

   l. Is instructor continuously coaching and encouraging?

   m. If instructor is right-handed, stay on right side of soldier regardless of how-handed he is. If instructor is left-handed, stand to the left of the soldier.

2. [redacted] INSTRUCTION:

   a. Are PROTECTIVE GLASSES in place?

   b. Have you checked soldier's MASTER EYE?

   c. Is soldier's head erect, BOTH EYES open and riveted on orange (red) spot?

   d. Has soldier assumed correct body position, leaning slightly forward?

   e. Is weapon brought smoothly to pocket in shoulder, stock-welded to jaw? "Make haste slowly."

   f. Is leading hand extended (left hand for right-handed shooters, right hand for left-handed shooters) because this is the hand that takes weapon to target? Be sure fingers are not over barrel where they would attract eyes?

   g. Is barrel of weapon down out of way of his vision so that soldier will not make comparison between muzzle and target?

   h. Is soldier LOOKING at BOTTOM EDGE of target, not POINTING gun?

   i. Are soldier's feet comfortably spread and weight on balls of feet for mobility and [redacted]?

   j. If target is missed, does soldier move to another target so that he won't bracket or shoot right back where he made his original error?

   k. Is instructor continuously coaching and encouraging?

3. SILHOUETTE TARGET M14 RIFLE INSTRUCTION:

   a. Is soldier's head erect, BOTH EYES open and riveted on orange (red) spot?

   b. Has soldier assumed correct body position, leaning slightly forward?

   c. Is weapon brought smoothly to pocket in shoulder, stock-welded to jaw? "Make haste slowly."

d. Is weapon at low-port position prior to firing?

e. Is barrel of weapon down out of way of his vision so that soldier will not make comparison between muzzle and target?

f. Are soldier's feet COMFORTABLY spread with weight on the BALLS of both feet?

g. Fire M14 EXACTLY as the BB gun. Be sure sights are taped and temporary rib aligned with bore of barrel.

APPENDIX IX

LECTURE AND DEMONSTRATION OUTLINE

[redacted]

Because Quick Kill is based on confidence, enthusiasm and showmanship, this entire block of training should be preceded by a lecture and demonstration narrated by the PI and performed by a team of AIs (suggest a team consist of 4 shooters, 1 thrower, 1 maintenance man) from the training cadre. It will arouse the soldiers interest, instill a positive attitude, and an anticipation for the ensuing training rarely realized in other military training programs.

During this lecture and demonstration, all basic points of firing position, procedure, engagement and safety applicable to the Quick Kill method of firing SHOULD and CAN forcefully be brought out. A somewhat detailed outline of the current lecture and demonstration conducted by the original hard-core cadre at Fort Benning follows. It is to be understood that, under certain conditions and in certain areas, PIs throughout CONUS may wish or need to expand or modify the dramatic aspects of the demonstration here described. However, the academic information and doctrine MUST NOT be altered in the SLIGHTEST DETAIL. The demonstrators should be highly trained experts in Quick Kill firing and instruction.

INTRODUCTION:

After soldiers fall into the bleachers, the PI commences the briefing with an oral description of the need for, discovery and development of a method of fast, effective, unaimed fire of short ranges at fleeting targets. The conflict in Vietnam has emphasized this need. Quick Kill has proven to be the answer and has now become an integral part of the Basic Army Marksmanship Program. (Time: Approximately 2-3 minutes.)

(Somewhere in here a fast, surprise type shot to gain attention of soldier - maybe Viet Cong appearing from ground, etc., or some variation or equivalent attention getter.)

DEMONSTRATION:

(1) PI explains that Quick Kill is as simple as pointing the finger at a spot on which you wish to fasten your attention. He then instructs the soldier to extend his natural pointing arm and point his forefinger at the center knob of the circle on the spiral. This he would do while both eyes were open. Each soldier would then sight down his arm and find that his arm was approximately alined with the inner point of the spiral. Each soldier would then close his left eye. If it appeared through his right eye that he was still alined he would know that his right eye was his MASTER EYE. On the other hand, if it were no longer alined and appeared to be pointing to the left of the focal spot, he should realine with both eyes open on the circle or knob and then close his right eye. In all probability he will now find that he is properly alined and this will indicate his left eye to be the MASTER EYE. There are some few cases where neither eye is dominant, but this neither occurs frequently enough nor causes difficulty to the point of needing to be further explained. The second part of this demonstration involves teaching the soldier how to concentrate on a given point. He shall be told to fix his attention upon the center knob or circle and then the disc should be rotated by hand or machine. If he maintains his point of focus, the spiral will appear to become either a concave or a convex cone but only if he maintains his concentration. This is an example of REALLY LOOKING at something rather than SIMPLY SEEING it. (Time: Approximately 4 minutes.)

DEMONSTRATION:

(2) An AI enters the pit, carrying a service weapon and assumes a ready position with weapon at high port. He brings the weapon to the firing position as the PI directs and points out the peculiarities of position and focus to the soldiers as described in Chapter 3. The PI also describes, during this phase of the briefing, that, throughout Quick Kill periods of instruction the soldiers will learn to fire their rifles as they would fire shotguns. To emphasize this point another AI enters the pit. He moves to a point just to the right of the AI, who has lowered his weapon to high port. The second AI who is a thrower tosses one of the large metal discs 20' to 30' in the air above the AI who is holding the service weapon. The AI brings the weapon to his shoulder and engages the aerial target. This can be repeated two or three times for effect and at the discretion of the PI. If the PI would prefer or circumstances would suggest, plywood discs, clay pigeons, or charcoal briquets may be used as targets. Further, if range limitations prevail a shotgun may be substituted for the service piece, and any of the above mentioned targets used. Upon completion of this demonstration, AI exits. (Time: Approximately 3 minutes.)

DEMONSTRATION:

(3) PI proceeds with a description of teaching with an air rifle the foregoing ability of hitting moving targets, and at this time an AI enters the pit, carrying an air rifle. PI reiterates explanation of positions; then has AI demonstrate proper cocking procedure (figure 7 and 8) and danger from improper cocking procedure. The second AI, who will be the thrower, enters the pit. PI now introduces procedure of instruction for engaging aerial targets with an air rifle and explains as dramatically and as forcefully as possible the necessity for wearing safety glasses during all air rifle shooting. Throwing AI now has taken up his position next to the shooting AI as illustrated in Figure 13a and tosses target as illustrated in Figure 12. Prior to his throwing the target as illustrated in Figure 13a, PI will describe and show the two size discs (figures 3a and 3b) that are used in training and that will be illustrated here. After shooting AI has successfully engaged both large and small discs, throwing AI produces a common two-inch washer from his pocket. The hole in the center is plugged with a piece of white tissue. This is held up for soldiers to see, and PI explains that, once a person has learned to control his binocular vision, confining it to a fine and definite point and can concentrate on that point for a fraction of a second, he is able to hit any point on the target at which he is so looking. Thrower then tosses plugged washer in the air and shooting AI fires the center out. AIs exit. (Time: Approximately 3 minutes.)

DEMONSTRATION:

(4) This completes BB aerial demonstration. PI now explains the ground target device illustrated in Figure 15 which has been brought into the pit by an AI. PI further explains the focusing difference between the shooting of aerial and ground targets, at the conclusion of which a second AI enters with an air rifle at high port and moves to a point within 15 feet of the miniature silhouettes. The AI opens fire from whichever shoulder is his natural shooting shoulder (usually the right); after firing on all 6 silhouettes, he raises the silhouettes and fires again -- this time from the opposite shoulder, during which the PI explains that, if a man LOOKS at his target, he can hit it from either side, although it feels very awkward to fire from the shoulder to which he is unaccustomed. The reason for his ability to do this effectively is because his EYES and his POINT OF FOCUS are the important factors involved. (If a moving ground target device is available, the effect is even more realistic and spectacular). If no such device is available, the second AI may roll a metal or plastic ball or one of the circular discs across the surface of the pit and the firing AI will engage it. Following this AIs exit. (Time: approximately 3 minutes).

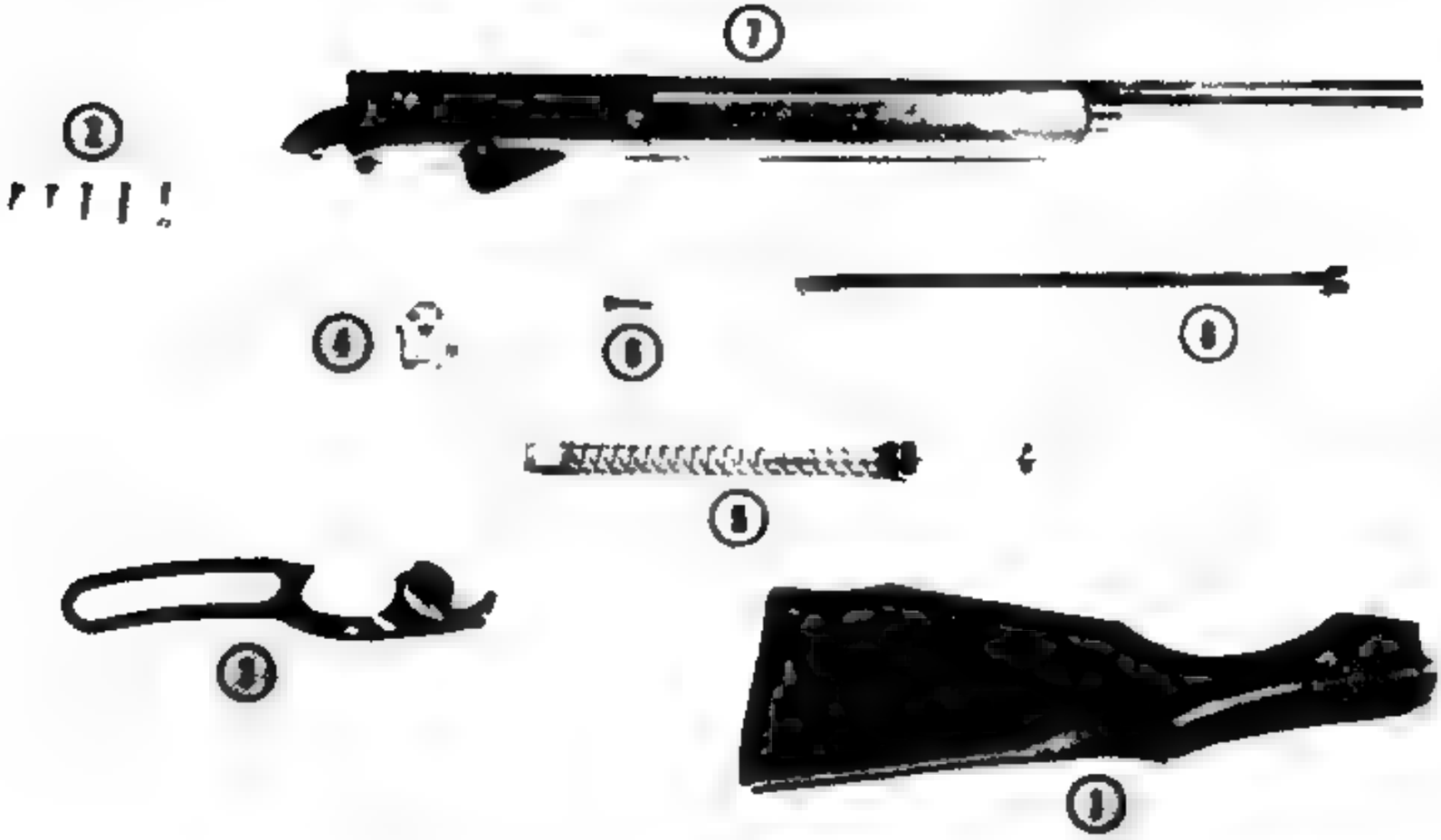
[redacted]

(5) PI advises soldiers that everything having gone before was training for the business of war which involves shooting the service piece and that THE SERVICE PIECE IS FIRED IN EXACTLY THE SAME MANNER AS THE AIR RIFLE. 3 AIs enter. One is carrying an M14, another an M16, the third an E-type silhouette with 2-3" red or orange circle painted in center or lower third as illustrated in Figure 16. The AIs holding weapons for inspection stand on either side of the AI holding the target while PI points out that the sights have been taped on both weapons and that temporary ribs have been attached. He will explain the purpose and function of the ribs and the reasons for the circle on the silhouette. Then the AIs carrying the M14 and M16 will proceed down range to a previously designated firing line with 2 range NCO attendants and will open fire on the outside two of three unmarked silhouettes set in cannisters, at a range of 30 meters, engaging these targets rapidly by the Quick Kill method. The two range NCOs will return the engaged silhouettes to the pit for inspection by the soldiers while the PI will discuss the number of hits and grouping. Range NCOs exit. (Time: approximately 3 minutes).

DEMONSTRATION:

(6) Finally, the PI will announce a simulated battle situation and an AI in full battle dress will charge out from behind the bleachers to a point 20 meters down range where he will drop to an even position, get off 4 rounds, assume the prone position and deliver 6 more rounds of fire, engaging the center of the 1 remaining unmarked silhouette at a range of 30 meters. He should have gotten off his 10 rounds in less than 10 seconds. His target will be returned for inspection and he, himself, will return to the pit so that the PI can point out his sights were taped and that he did NOT have a temporary rib attached to his weapon. Exit AI. (Time: approximately 2 minutes).

This concludes the demonstration. (TOTAL TIME: approximately 18-20 minutes).



REPAIR GROUP NO	NOMENCLATURE
1 [illegible] S	STOCK
2 [illegible] SA	SCREW ASSORTMENT
3. [illegible]	LEVER COCKING
4. [illegible] T	TRIGGER ASSEMBLY
5. [illegible] PA	PLUNGER ASSEMBLY
6. [illegible]	ANCHOR SPRING
7. [illegible] B	MAIN BARREL [illegible]
8 [illegible]	SHOT TUBE ASSEMBLY

Disassembled Air Rifle

Figure 20

Cocking Lever Bolt Wrench

Figure 21

Plunger Fork

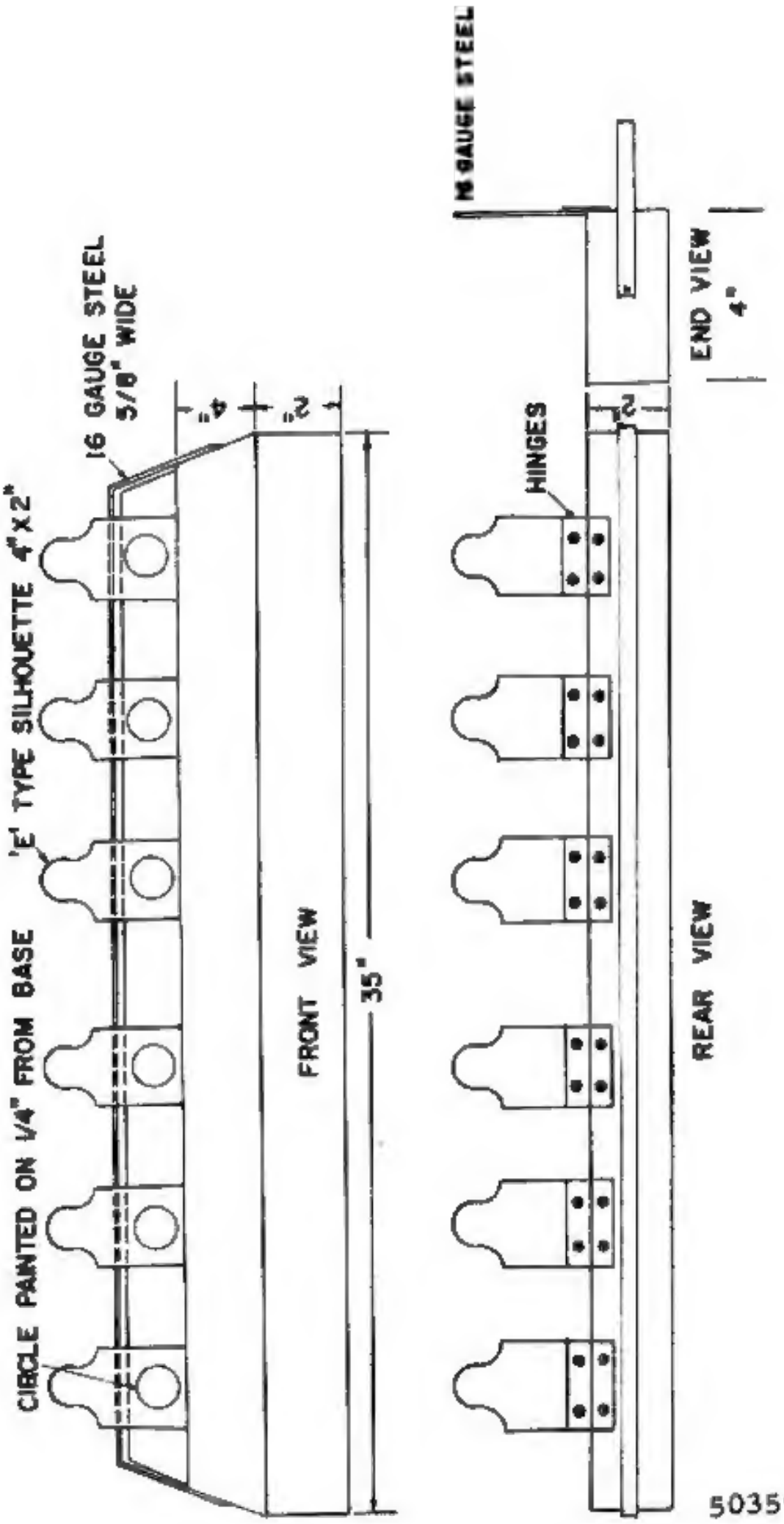
Figure 22

Removing flexible plunger head assembly

Figure 23

APPENDIX X

WORKING DRAWING, GROUND TARGET DEVICE



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Ft. Benning, Ga.
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